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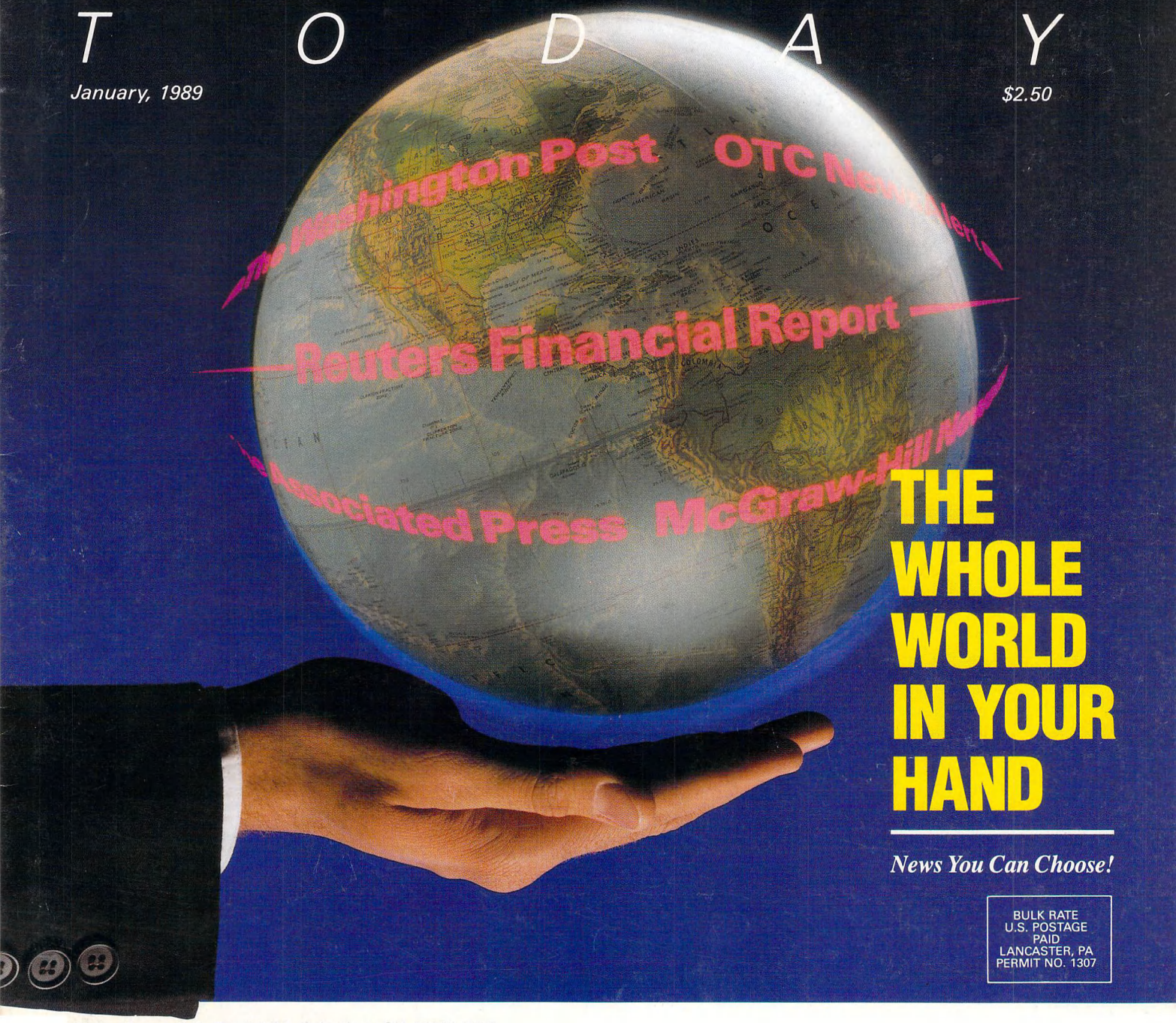

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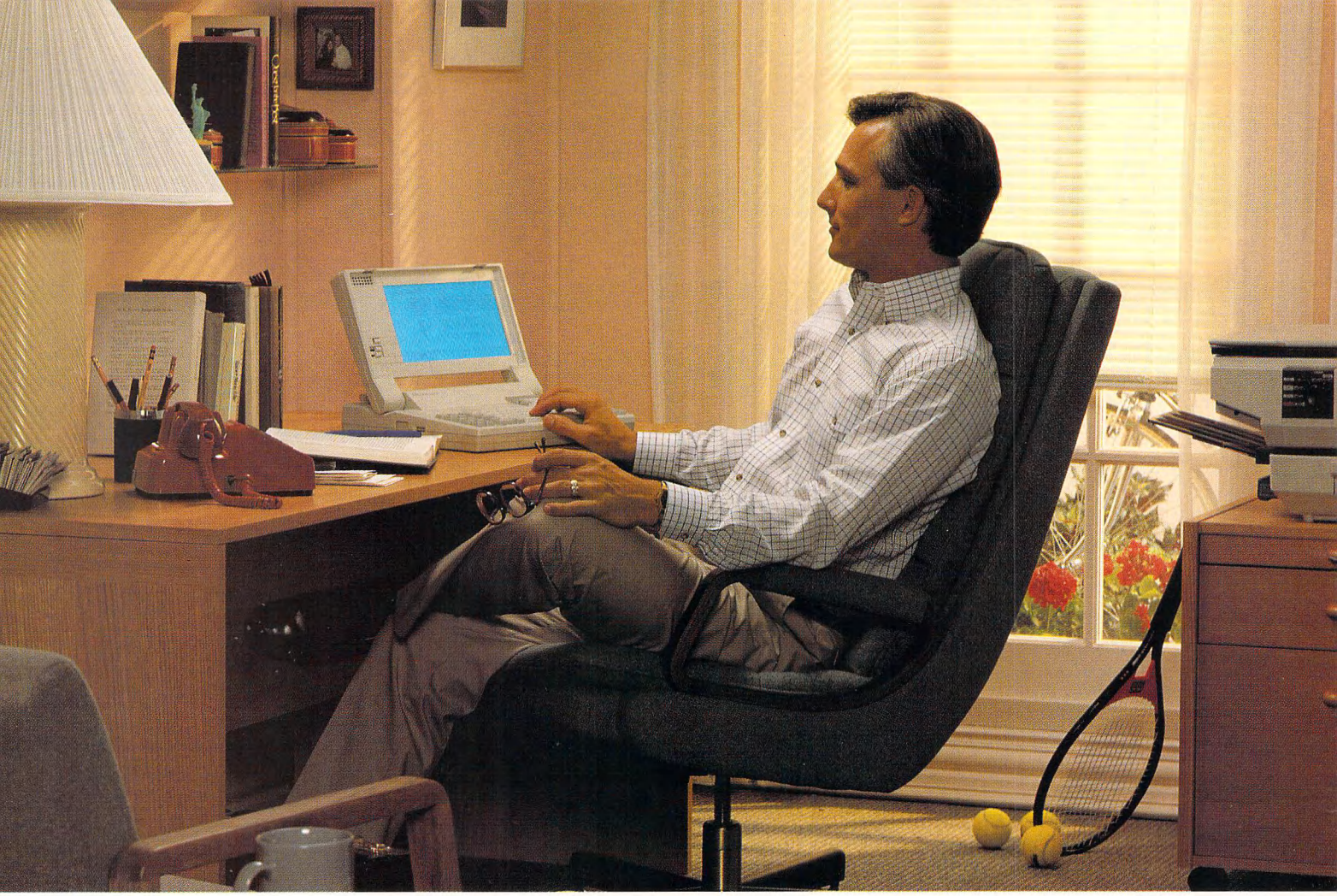

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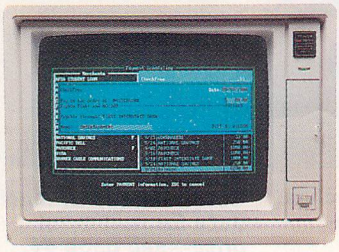

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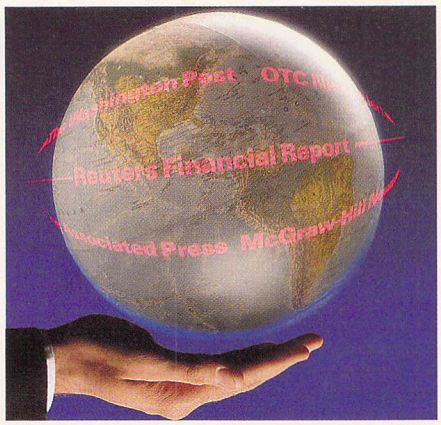
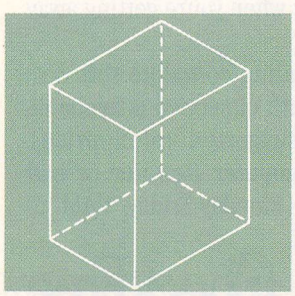


COVER STORY

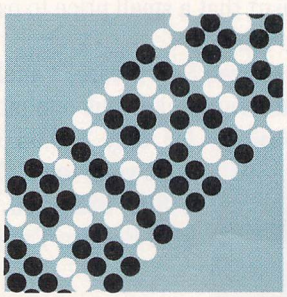
Get up-to-the-minute news coverage of your choice and be the first 'in the know'—see page 16.

LIFESTYLES

Discuss ski equipment, camping sites and more with members of the Outdoor Forum—see page 46.



Download CAD program code free thanks to* CADalyst *magazine—see page 12



Ticker symbol searches are now surcharge-free—see page 43

Get maximum financial data for minimum price—see page 44

Too Hot to Print

Catch computer industry news as it happens, keep up with online events, read special reports, commentary and more product reviews. You'll find it only in *Online Today Daily Edition*, a daily-updated newspaper full of information that's too hot to print. GO OLT.

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LETTERS

October *Online Today*

The October issue was a pleasant surprise. I especially appreciated the highlighted areas identifying direct GO commands to reach databases. This information was useful to me, a new user, and may also be appreciated by experienced users. I hope you will continue doing this in future editions.

Bob Hering
Doylestown, Pa.

CompuServe Almanac

The *CompuServe Almanac Fourth Edition* is a great source of information for users at all levels. I compare it to the North Star that guided early explorers across the ocean—the *Almanac* guides its readers through the vast oceans of knowledge and services that CompuServe provides. Keep up the good work.

Kenneth N. Czosek
Cheektowaga, N.Y.

EasyPlex/FAX Connection

I have been using your new FAX service steadily since it was announced. Being able to send FAX messages from my NEC Multispeed laptop computer in my hotel room in Tokyo back to the office recently was a real advantage; it's nice to return home *after* my work reports do.

Alan Rae
Youngstown, N.Y.

I read about sending FAX messages via EasyPlex (October issue, page 14) and would like to be able to do that. The last line of the article says "For information on the new EasyPlex-FAX link, type GO EASY and at any prompt within EasyPlex, type HELP FAX."

On my first attempt, I accessed EasyPlex with no problem and read a 14-line "Welcome to EasyPlex" introduction, ending with "Do you wish additional information? (Y/N)!." Following the instructions in *Online Today*, I typed HELP FAX but again received the 14-line introduction.

Then, when I received the "Do you wish additional information?" prompt again, I typed Y. The two-and-a-half pages of information I received did not contain anything about FAX.

Robert B. Ormsby
Newhall, Calif.

Editor's note: The HELP FAX command will provide information about sending FAX messages if you use it at a regular system prompt (!) within EasyPlex, rather than at a Y/N: prompt.

Correction

In the Letters column (November issue, page 5), a command error appeared in the "Ticker Input File" letter and editor's note. The correct command to use is //OUTPUT = STOCK.PRN, not /OUTPUT = STOCK.PRN.

In the Monitor section (December issue, page 7), an address was printed incorrectly. The Writer's Edge Inc., a network of professional writers and editors who edit and review written material electronically, is located at P.O. Box 350, Cambridge, MA 02140; 617/547-8731.

Send a Letter

OLT-30 **Letters to the Editor** *main menu. Lists all departments.*

OLT-31 **Send a letter instructions.** *Complete instructions on how to send a letter to the editor via the electronic service.*

OLT-32 **Read letters** *from other OLT readers.*

OLT-33 **Send a letter** *to the editor. You will receive prompts for each step in the process. Important Note: We cannot answer questions regarding the CompuServe Information Service through this service. If you have questions or problems, please use the Feedback service (GO FEEDBACK).*

Changing Your Password

The CompuServe Information Service urges its customers to change their password(s) at least once a month.

The password should be a minimum of eight characters composed of two unrelated words separated by a symbol, for example: HOUSE*MAGNET.

To find out how to change your password, type GO PASSWORD.

ONLINE TODAY

FREE Listing

Business associates and friends can find you fast when you list your electronic mail addresses for FREE in the National E-Mail Registry—the national online directory.

List your FAX and telex numbers, too. No cost to call *or* register!

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(300,1200, or 2400 baud)
After you connect, touch RETURN 3 times.

NATIONAL E-Mail REGISTRY

GO OLI for more information.

DEAR READER

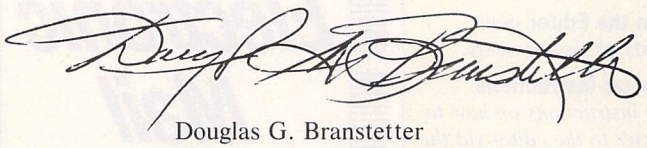
News services are clear-cut examples of the power of online communication. In many cases news is available online hours or even days before it appears in print. Not only is news more readily available, but it's easily manipulated: it can be automatically searched, retrieved, stored and routed.

After you've plugged into online news, you'll find a contrasting experience akin to the word processor vs. the typewriter—once you've tried the new technology, you won't want to go back to the old way of doing things. What many users appreciate most is the ability to be more than a passive recipient of information. With online services such as CompuServe's ENS clipping service, readers can direct the subject and path of their information according to interest and need.

If you haven't discovered the power of online news, we invite you to get acquainted by reading this month's cover feature, "News You Can Choose," beginning on page 16. Even if you already take advantage CompuServe's wide array of news services, you're likely to find valuable tips to enhance the power and gratification of staying informed online.

* * *

The editors at *Online Today* would like to thank readers who took the OLT online readership survey last month. We are in the process of tabulating results and will report back on some of your answers in this column. We always value the input of our readers and are constantly striving to make *Online Today* a better tool for CompuServe subscribers. If you missed the survey, we invite you to send us your feedback in the *Online Today* feedback area (GO OLT-30). Let us know how we can make your online experience more profitable and pleasurable.



Douglas G. Branstetter
Editor

ONLINE TODAY

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It's CompuServe Customer Service to the rescue. Just type GO HELP at any ! prompt.

If you need to talk, call 800 848-8990 for friendly, personal assistance.

In Ohio and Canada, call 614 457-8650.

CompuServe®

Program Projects Retirement Benefits

The Social Security Administration has a new piece of computer software that can simplify retirement planning.

Until recently, SSA could tell workers only how much money had been contributed into their employee Social Security accounts. The information was useful primarily for those who wanted to verify that their employer had deposited Social Security taxes to the correct account.

A new program, known as the Personal Earnings and Benefit Estimate Statement, can project a worker's retirement benefit for any time in the future. The additional information is particularly useful for those close to retirement age and those who need accurate income estimates.

Those interested in trying the new program can call the Social Security Administration at 800/937-2000. The request center, open 24 hours a day, will send a form that must be signed and returned.

A PEBES printout and benefit estimate will take about four weeks from receipt of the completed form by the Social Security Administration.

Information about specific Social Security benefit programs is available on CompuServe by typing GO SSA.

—James Moran

Ode to a Database

When Edmund Spenser wrote *The Faerie Queene* back in the 1590s, the prince of poets could never have dreamed that one day the longest poem in the English language would be inspiration for a computer database.

Dr. David Richardson, a Spenser scholar at Cleveland State University, began a mammoth project in 1977 culminating in the publication of a two-volume encyclopedia on Spenser, produced with the help of 400 contributors in 21 countries and several Radio Shack computers.

Midway through the decade-long research project, Richardson decided to upgrade his computer system and trouble ensued.

A frustrating 18 months led Richardson to design an information clearinghouse database of successful examples of humanities research using technology.

With the database, scholars could learn the best type of hardware and software to use for a particular research project. They also could get advice on solving problems from others who had experienced similar woes. The online database, which is still in its

King Associates

prototype form, is called the Humanities and Technology Information Center. With funding from the National Endowment for the Humanities, the state of Ohio and Cleveland State University, the non-profit database is on its way to becoming a reality. Searches can be conducted by subject matter, investigator, type of hardware or software, medium of distribution and Boolean combinations of all of these.

For information, contact Richardson at Cleveland State University, Department of English, Rhodes Tower, 1860 E. 22nd St., Cleveland, OH 44115; 216/687-3961.

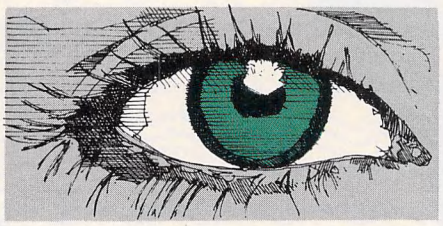
—Cathryn Conroy

Easing Eye Strain

Imagine a row of VDT operators simultaneously doing their daily exercises. Not sit-ups or jumping jacks. They are sitting straight in their ergonomic chairs—and blinking.

Eye strain is a serious concern among computer users. Dr. Ernest Loewenstein, an optometrist, believes that blinking exercises can eliminate or at least reduce the eye strain and related visual discomfort from which 94 percent of the nation's 20 million VDT users are reported to suffer.

Loewenstein, an associate professor



at the New England College of Optometry, says that the main cause of eye strain is improper blinking. Due to the fixed focus needed when working at VDTs, many operators, including those who wear contact lenses, blink less often than they should and therefore may experience drying of the eyes.

"Ideal blinking frequency is every three seconds. If you sit at a VDT for a significant portion of the day, chances are you are not blinking often enough to keep your eyes as moist as they should be," he says.

Loewenstein and Polymer Technology Corp. have developed a program to improve your blinking. The first step is to learn to close your eyes completely. Loewenstein suggests that you concentrate while doing this and have someone watch you. You should obtain a "relaxed blink" in which the eyelids do not quiver or flutter when closed, and are not squeezed shut. Move your eyes from left to right under the closed lids and breathe deeply. Keep the lids closed for two to five seconds, open and repeat for one minute every day for three weeks.

After a week, learn to blink every three seconds by counting 1001, 1002, 1003 and then blink. Close your eyes long enough that you can feel the upper and lower lids touch. Repeat for one minute every day for three weeks.

For information and a free booklet, contact the Communication Dept., Polymer Technology Corp., 100 Research Dr., Wilmington, MA 01887; 800/343-1445.

Miniature Monitor

The Private Eye by Reflection Technology provides the image of a 12-inch monitor in a miniature package that measures 1 by 1.2 by 3.2 inches and weighs less than two ounces.

The display typically draws 320 milliwatts and can be battery powered for portability. Held to the eye and mounted on a headset (much like looking through a kaleidoscope), The Private Eye displays 720 by 280 pixels, which can be formatted as 25 lines with 80 characters per line. The image appears to be about two feet away from your eye with a quality and resolution that rivals a computer, allowing high-quality display of text and graphics.

Analysts are intrigued by the product. Dr. Jerome Wiesner, former president of the Massachusetts Institute of Technology, says it is one of the most important developments in the field of display technology, because it will allow for an entire class of new miniature products. Some scientists believe it will change the way people interact with machines.

It will, for instance, allow a high-performance calculator to display complex graphing functions for scientific computations, and the entry and manipulation of spreadsheets and large data files. Pocket computers can retain much of the functionality of laptop computers. Coupled with a modem or fax circuitry, The Private Eye can convert a telephone into a terminal, allowing, for example, stockbrokers to receive daily trading information or real-estate agents to receive listings via fax while transporting clients.

The future looks bright for miniature devices. Analysts say we can expect to see pocket information devices that contain huge databases or books with a display coupled to a mass storage device. Video games and 3-D CAD systems may be developed in which the user is supplied with two displays and gets a 3-D image. Eventually, there may even be head-mounted televisions.

For information, contact Reflection Technology, 171 Third St., Cambridge, MA 02141; 617/547-2422.

—Cathryn Conroy

Speedy New Network Links Computer Centers

The fastest non-private computer network in the world is now online.

The new National Science Foundation Network can transmit up to 1.5 million bits of information per second, a rate almost 30 times faster than the system it replaces.

The new network links six supercomputer centers and seven regional academic networks across the country. It also is connected to several other research support networks, including ARPANET and the NASA Science Network. The network uses MCI's digital and fiber-optic circuit network. IBM hardware and software is used to route data in packet-size chunks.

Further details are available from the National Science Foundation, 1800 G Street, Washington, D.C.; 202/357-9498.

—John Edwards

Today the Desktop, Tomorrow ...

Today, anyone with a computer and printer can produce sophisticated newsletters, brochures and reports that were once the domain of professional printers. But Regis J. Delmontagne, president of the National Printing Equipment and Supply Association, says that desktop publishing is not replacing traditional printing.

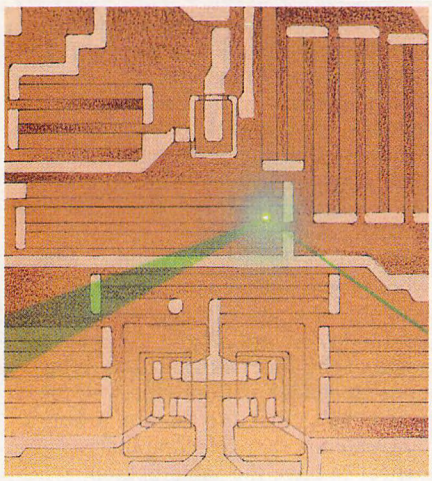
"Although it was initially perceived as a serious threat to the traditional printing market, electronic publishing is increasingly seen as an expansion of that market, bringing new customers together with new suppliers in new ways," says Delmontagne. Because the finished product is only as good as the computer printer, many people still want a professional job.

Even some professional printers are using desktop publishing as a way to offer their customers more affordable printing. "The initial outlay to purchase the equipment necessary to have a profitable desktop operation may seem prohibitive to many small-business operators, but they may be forced to ask themselves if they can afford not to jump on this bandwagon," says Nancy K. Newbury, editor of *Post Gutenberg*, a trade newspaper.

"Technology will influence the future of our industry, but it will not create it," says Ray Roper, president and CEO of the Printing Industries of America. Roper predicts that integrated systems will lessen the reliance on human judgment in the production of high volumes of quality work by the professional printer.

For more information and a copy of *Insider's Views on the Future of Graphic Arts*, contact the Graphics Arts Employers of America 1730 N. Lynn St., Arlington, VA 22209; 703/841-8100.

On CompuServe, the Adobe Forum (GO ADOBE) and Aldus Forum (GO ALDUS) have information on desktop publishing.



King Associates

Quick Chip Fixer

Microchips are delicate and finicky devices. A piece of dust or a microscopic flaw can ruin a device's circuitry.

With today's chips cramming more circuits onto ever smaller silicon wafers, up to 75 percent of a production run can turn out defective.

Repairing chips can be a touchy matter. Electro Scientific Industries of Portland, Ore., has developed a laser system that it claims can test and fix a higher volume of chips than previously possible. The system uses a laser beam that is accurate to one-half a micron, or one two-hundredth the thickness of a human hair. This is roughly a 50 percent improvement over earlier chip repair systems.

Electro Scientific says its unit can repair chips with 16 times the density of today's most tightly packed chip.

For more details, contact Electro Scientific at 503/641-4141.

How to Get the Most Out of CompuServe

Selecting Online Options

by Charles Bowen and David Peyton

Personal computing in the late 1970s was much like personal transportation at the turn of the century, when cars came in all shades of black.

Desktop computing offered little flexibility and those of us who were determined to get in on the technological revolution had to adapt ourselves to one of the few existing molds. Assembly (or at least some kind of programming) was required, and there was little room for argument about the quality of competing programming languages, operating systems or different machines, simply because there were not many different machines, operating systems or programming languages for the new microcomputers.

It is perhaps to the credit of humans' indefatigable craving for independence that the 1980s have changed that. It is our species' wont to customize its environment, and these days our most sophisticated tools routinely accommodate that drive. Whether with a word processor, a communications program or a spreadsheet, we end users (and today we are *all* end users at least some of the time) expect to have options to change not only the way the system looks, but also the way it works.

Contemporary telecomputerists expect to have the same flexibility available online. On CompuServe, these major customizing options are controlled in the same part of the system that we have been discussing for the past few months, the Profile area.

In previous columns, we talked about several options in Profile's Permanent Settings menu:

```
*******************************
PERMANENT SETTINGS
  1 Explanation
  2 Log-on/Service options
  3 Display options
  4 Terminal type/parameters
  5 Transfer protocol/graphic support
  6 Make session settings permanent
Type EXIT when done
Enter choice!
*******************************
```

So far, we have focused only on those settings that affect the display, such as screen width and depth, the use of blank lines, and upper- and lowercase letters. However, another part of Profile lets you experiment with much greater changes, such as altering what CompuServe thinks is the beginning of the service, changing the way it handles electronic mail, even having the system recognize your own personalized menu of features.

The action starts with menu Option 2, "Log-on/Service options," which produces a menu like this:

```
*******************************
LOG-ON/SERVICE OPTIONS
  1 First service at log-on [MAIN]
  2 EasyPlex waiting [GO TO EASYPLEX]
  3 Personal menu established [NO]
    (Select this to create or
    change a personal menu.)
  4 TOP goes to [MAIN]
  5 Online editor [DEFAULT]
  6 Forum presentation mode [DEFAULT]
Enter choice!
*******************************
```

These six options offer various possibilities.

For starters, Option 2—"EasyPlex waiting"—determines the log-on action when a letter has arrived in your EasyPlex mailbox. As now set, the system takes you directly to the electronic-mail feature whenever a letter is waiting. With this option, though, you can specify, alternately, that you want to be informed about waiting EasyPlex but not taken directly to the mailbox.

Option 5, "Online editor," refers to the two editing programs available in various features, including Linedit (a line-numbered editor) and Edit (a non-numbered editor). This option lets you specify your preference for whenever an editor is needed. The choices are Edit, Line and Default (meaning no preference).

Option 6, "Forum presentation mode," is a valuable option for those who frequent forums and enjoy exploring new ones. The option determines the type of presentation you routinely receive in all forums, even for those you have not visited yet. The possible settings are Menu (novice mode), Command (expert mode, which gives you one-word prompts) and Default (meaning no preference).

Note: With Options 5 and 6, it is wise to keep the default setting (Linedit and Menu, respectively) until you have fully explored the system. The defaults provide the new user with verbose prompts for help in learning the system.

The remaining three options deal with how CompuServe appears at log-on.

Option 1, "First service at log-on," determines the front door for your account. Selecting it shows you a menu like:

```
*******************************
FIRST SERVICE
Permanent setting = [MAIN]
  1 MAIN menu (Normal setting)
  2 Designated first service (You specify
    which one.)
  3 Personal MENU
    (A menu you have constructed)
  4 COMMAND mode in the personal file
    area
Enter choice or
<CR> to leave unchanged!
*******************************
```

Note that the normal setting is Main, that is, the Top menu we are accustomed to. However, the menu also gives three alternate starting points: a "Personal Menu," a different designated page number or the Command mode of the Personal File Area (PER).

The designated page number means that you can specify your own starting page. When you select Option 2, the system prompts for the address of the feature you want to see first each time you log on. If you want to start always in the CB Simulator, type CB-1. If you prefer a specific forum as the front door, enter its page address. Any legal system page number can be entered here.

The last option—Command mode—allows you to have no opening menu at all. Flipping this switch causes your log-on screen to look like this:

```
*******************************
CompuServe Information Service
17:26 EST Thursday 22-Dec-88
(Executive Option)
Last access: 23:02 19-Dec-88
Copyright (C) 1988
CompuServe Incorporated
All Rights Reserved
OK
*******************************
```

This is the Command mode of your Personal File Area, from which you can enter a GO command followed by a page address to travel to specific features (GO CB, GO MAUG, GO IBMNET, for example). Because it is so streamlined, this is a particular favorite setting with long-time subscribers. You can even GO from OK to the Top menu

with GO TOP, which produces the familiar:

```
*********************************
CompuServe                    TOP
  1 Subscriber Assistance
  2 Find a Topic
  3 Communications/Bulletin Bds.
  4 News/Weather/Sports
  5 Travel
  6 The Electronic MALL/Shopping
  7 Money Matters/Markets
  8 Entertainment/Games
  9 Home/Health/Family
 10 Reference/Education
 11 Computers/Technology
 12 Business/Other Interests
Enter choice number !
*********************************
```

Speaking of Top brings us to the next log-on/service option Top goes to. The Top menu in this example is the page CompuServe makes as its default for the top of the system; it is the one to which you return when you enter GO TOP or a T command. However, you can change that destination page. If you type 4, the system lists these options (in a menu almost identical to the previous example):

```
*********************************
TOP GOES TO
Permanent setting = [MAIN]
  1 MAIN menu (Normal setting)
  2 Designated top page
    (You specify which one.)
  3 Personal MENU
    (A menu you have constructed)
  4 COMMAND mode in the personal file
    area
Enter choice or <CR> to leave
unchanged!
*********************************
```

Need to Keep Up with the Computer and Information Industries?

We publish all the computer industry news every day in *Online Today Daily Edition*. GO OLT-90 from any prompt on the CompuServe Information Service.

ONLINE TODAY

Option 2 lets you designate a specific page as the top of the system. Or Option 4 allows you to consider Command mode of the Personal File Area (the OK prompt) as the system's top. And, there again is "Personal menu."

Option 3, "Personal Menu established," enables you to customize a menu of your favorite features. It may contain up to 10 choices, and for each you enter a page number and a description of the feature. Suppose you want your personal menu's first option to be the *Online Today Daily Edition*. You need to know that its direct page number is OLT. After you chose Option 4, the system prompts:

```
*********************************
Menu choice 1
Page number:
*********************************
```

Type OLT and CompuServe asks for a description (that is, how you want it to appear on the menu. You might type ONLINE TODAY).

Suppose you also want the IBM Users Network (IBMNET), the CB Simulator (CB-1), the CENDATA Census database (CENDATA) and EasyPlex (MAIL) on your menu. After you answer the questions (supplying a page number and description for each item when prompted), the system displays the choices and gives you a chance to insert, delete or change any of them. After that, the system sets up the Personal menu and places in your Personal File Area a new file called MENU.CTL. Suppose you also chose the Personal menu as your first service on the previous menu. The next time you log on, you are greeted by this:

```
*********************************
Copyright (C) 1988
CompuServe Incorporated
All Rights Reserved
CompuServe Personal Menu
  1 Online Today
  2 IBM Network
  3 CB Simulator
  4 EasyPlex
  5 CENDATA
Enter choice !
*********************************
```

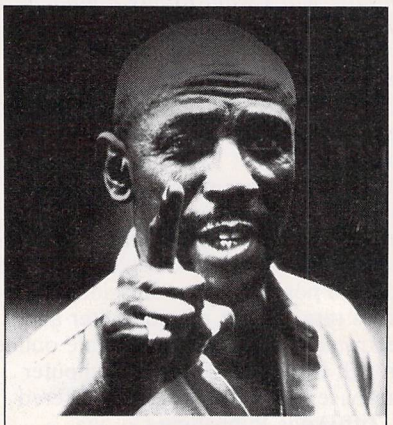
To go to any of the selections, enter a number. And to return to your Personal menu from elsewhere in the system, type GO MENU. (If you selected Personal menu as the "top" of the system, you could return to it by entering T.)

When you are creating a Personal menu, you occasionally might receive a message that says, "That page is empty," even though you know it is an active page. Customer Service can provide you with a page number that will work in the menu for that particular service. Send a message via Feedback (GO FEEDBACK) that includes the page address where you have had trouble.

To disable the Personal menu, return to the First Service menu in TERMINAL/OPTIONS and pick something other than personal menu, such as Main or Command.

When your Personal menu is stored in your Personal File Area, it is like any other PER file. That means that if you have not accessed it in 30 days (or six months, if you have the Executive Option), the menu may be deleted.

Charles Bowen and David Peyton co-authored How to Get the Most Out of CompuServe *and* CompuServe for IBM PC Power Users. *Bowen's CompuServe User ID number is 70007,411. Peyton's is 76703,244.*



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Articles at Your Fingertips

New Database Targets Computer Magazines, Journals

by Dan Janal

It's here somewhere. That article about 9600-baud modems. I remember glancing through it a few months ago. But now that I want to buy a modem, I can't find the review. Where can it be?

Misplacing or losing magazine articles is a common occurrence in our often fast-paced, busy lives. Even keeping up with computer articles on a particular subject is nearly impossible with the countless number of computer-related publications currently available. But CompuServe's new library of computer magazines offers a solution: more than 120 popular and professional magazines targeted for the computer and electronics industry are available online through Computer Library/Computer Database Plus, a new service offered by Ziff-Davis Publishing Co. via CompuServe.

Computer Library/Computer Database Plus contains more than 64,000 article summaries and more than 24,243 full-text articles since Jan. 1, 1987. Popular magazines such as *PC Magazine*, *ComputerWorld*, *MacUser*, *A+*, *Classroom Computer Learning* and *Unix World* are included. Even specialized journals such as Andrew Seybold's *Outlook on Professional Computers* and *Applied Mathematics and Computers* are included, as are professional journals about computers in banking, biotechnology, health care and mechanical engineering. Of these 120 titles, more than 50 contain full-text articles. Most of the full-text articles date back to January 1988, but some go to January 1987.

Computer Library/Computer Database Plus provides an easy-to-use, comprehensive approach to computer literature, available day or night, and a wealth of information that you might not otherwise find or have access to. After all, who has the time to read 120 magazines? If, for instance, you are reading reviews for a new word processor, you might find articles here to influence your decision. Or, if you are thinking of investing in a company, the database has articles that point to "hidden treasures" that would make you think twice about investing your hard-earned cash.

Ziff-Davis, publisher of several magazines in the database, has pledged to create a service that is thorough and timely. "Computer Library/Computer Database Plus provides current and comprehensive coverage of the major computer industry journals in the areas of hardware, software, electronics, engineering, communications and the application of technology," says Seth Alpert, vice president of development at Ziff-Davis. "It is updated every week and contains full-text articles and abstracts."

Abstracted articles include all feature items, product reviews, evaluations and selected departments. Articles about electronic products and companies that are not computer-related, editorials, letters-to-the-editor, computer games, and question-and-

Full-text Titles for Computer Library/ Computer Database Plus

A+
Administrative Management (the magazine of Office Administration and Automation)
Classroom Computer Learning
Communications of the ACM
Computer & Communications Decisions
Computer & Software News
Computer Decisions
Computer Design
Computer Graphics World
Computers in Banking
Computers in Healthcare
Datamation
Digital Review
Dr. Dobb's Journal of Software Tools
Dr. Dobb's Journal of Software Tools for the Professional Programmer
DG Review
Electronic Business
Electronic Learning
Electronic News
EDN
ESD: The Electronic System Design Magazine
Government Computer News
Hewlett-Packard Journal
High Technology Business
I&CS (Instrumentation & Control Systems)
Infosystems
IDP Report
Lasers & Optronics
Lotus
MacUser
MacWEEK
Microsoft Systems Journal
Mini-Micro Systems
Modern Office Technology
MIS Week
Optical Information Systems
Personal Computing
PC Magazine
PC Tech Journal
PC Week
Rainbow
Small Computers in Libraries
Software Magazine
The Journal
Telecommunications
Telecommuting Review: the Gordon Report
Teleconnect
Telephony
TPT (Telecommunications Products & Technology) Magazine
UNIX Review
Wall Street Computer Review

answer columns are not abstracted.

To access Computer Library/ Computer Database Plus, type GO COMPLIB at any CompuServe prompt. You will see a welcome menu from Ziff-Davis that enables you to access the database and learn how to search for articles effectively and efficiently.

Although the database is operated on Ziff-Davis hardware, virtually all of CompuServe's navigational commands and search features are used, so you won't have to learn a new set of commands.

For instance, you can enter the standard CompuServe commands: [M]enu, [T]op and [R]esend at most prompts. You simply respond to a series of menus and prompts. The search system is so flexible that you can find articles by any of 11 methods (including company names, product names, feature personalities or publication names) that enable you to expand, narrow or redefine the search at any time. For example, you can search for articles on hypertext for personal systems computers that have appeared within the last three months.

"The advantages of a product like this are immediate response and flexibility when you want to read and find recent issues," says Alpert. "Computer Library/Computer Database Plus is designed to help you quickly find and display articles. It gives several ways to identify articles of interest. These ways can be used either singly or in any combination to find just what you're looking for."

When you choose to display articles from the Search Summary menu, Computer Library/Computer Database Plus lists the citations of every article that matches all search criteria. To display articles, simply enter their citation numbers at the Command prompt.

Although few people could afford to subscribe to 120 publications, most CompuServe members will be able to afford the search charges for Computer Library/Computer Database Plus. An abstract costs $1 and a full-text article costs $1.50. A connect surcharge of $24 per hour also applies.

So, if you need to find a modem review, a quote from the company executive, the price of a zippy laptop, or a comprehensive overview of OS/2 or HyperCard, the information is only a phone call away on Computer Library/ Computer Database Plus.

Dan Janal is president of Legal Computing Systems, a training and consulting firm in Fort Lee, N.J. His CompuServe User ID number is 76004,1046.

File Finder Finds the 'Needle in the Haystack'

by Mike Schoenbach

CompuServe provides the most extensive collection of files available for Macintosh and IBM PC owners. The thousands of files online range from educational programs for preschool children to powerful business applications.

Such a vast selection of files has its price, though, as can be attested to by any Macintosh or IBM PC owner faced with the task of locating a much-needed but hard-to-find file. However, with the aid of CompuServe's new File Finders, locating files will no longer feel like wading through bales of hay to find a needle.

File Finder was developed by CompuServe to provide subscribers with a quick, easy and time-saving alternative for finding Macintosh- and IBM PC-related files. "CompuServe is convinced that the IBM and Macintosh areas will continue to grow and provide more information than ever before," says Sharon Baker, CompuServe product manager of online Macintosh and IBM products. "To assure that our subscribers can get to the information, we created this product by combining search technology with some of our most successful IBM and Macintosh forums. We're interested to see whether or not this prototype will help subscribers get more value from CompuServe."

The IBM and Macintosh File Finders enable users to locate files by selecting any of seven searchable criteria. The IBM File Finder's comprehensive index includes references to files available in the IBM Applications Forum, IBM Systems Forum, the IBM Hardware Forum, the IBM Programming Forum, the IBM Junior Forum, the IBM Communications Forum, Borland Applications Forum, Borland Programming Forum A, Borland Programming Forum B, the Ashton-Tate Forum, the WordPerfect Support Group, the Lotus Stand-Alone Forum, the Lotus Integrated Forum, and the Microsoft Forum.

The Macintosh File Finder includes references to files available in the Macintosh Vendors Forum, the Macintosh Business Forum, the Macintosh Fun Forum, the Macintosh Programmers Forum, the Macintosh HyperCard Forum, the Adobe Forum, the Aldus Forum, Borland Programming Forum A, Borland Programming Forum B, the Lotus Integrated Forum, the Microsoft Applications Forum, the Ashton-Tate Forum and the WordPerfect Support Group.

File Finders can be accessed by typing GO IBMFF and GO MACFF. Select the "Access File Finder" option on the main File Finder menu, and begin your search by specifying the search criteria you wish to use, including keywords (topic), submission date, forum name, file type, file name, file extension and submitter's User ID number.

After selecting the type of search and specifying the search criteria, File Finder will display the file names that meet your search criteria. If more than 19 files are found, File Finder will give you the option of narrowing your search with secondary criteria.

There are many situations in which File Finder can come in handy. Suppose, for example, you are a fan of a particular programmer and wish to find all of the files he or she has uploaded over the years to CompuServe. Instead of searching each library of all the IBM or Macintosh forums, File Finder can quickly obtain a list of all of the contributions made by that person, complete with full file descriptions and references to where the files can be found. Or suppose you need a printer driver, or you are looking for a business application that you know was uploaded in 1987. File Finder can come to your rescue.

File Finder displays a menu containing the file names of all files found by your search, plus the forum name and library number where the file can be downloaded. By selecting any of the menu options, you can receive more detailed information about that file (including complete file description, file size, submission date, submitter's User ID number, and the number of times the file has been downloaded). File Finder provides you with all of the information required to easily locate and download the desired files. Detailed help and searching tips are available from the main File Finder menu.

CompuServe members are invited to provide feedback on the current prototype of File Finder by filling out an online questionnaire. Select "Your Comments about File Finder" from the menu.

CADalyst Magazine Presents 'Hot Tips'

by Michael Naver

It is not unusual for a computer magazine to publish program code that readers copy into their computers. But it's not every computer magazine that lets you download those programs from CompuServe.

Since last June, *CADalyst*, a monthly magazine for engineers, architects and builders who use AutoCAD, has been making its published code available free of charge on CompuServe.

The *CADalyst* code is available on CompuServe's Autodesk Forum (GO ADESK). Autodesk Inc., which operates the forum, markets AutoCAD, an industry-standard computer-drafting package that has sold more than 150,000 units worldwide.

The popularity of AutoCAD has gone hand in hand with the success of *CADalyst*, which started nearly five years ago as a bimonthly newsletter and now is a monthly full-color magazine with 40,000 subscribers. Much of that popularity is due to the "hot tips" of computer code the magazine publishes each month.

No one is more pleased about *CADalyst*'s CompuServe connection than Autodesk Forum Administrator Jamie Clay. "I praise them for doing this because I, for one, hate to type things out of magazines. And it's a great way to share information," he says. Kathy Gerber, CompuServe product manager, agrees. "*CADalyst* found that its users spend a lot of time typing in code, and many of those users are on CompuServe," she notes. "They know they're getting quality code from the magazine when they download it from CompuServe."

CADalyst senior editor David Cohn believes it is just a matter of responding to reader desires. "The magazine has always published a number of tips for AutoCAD users," he says. "When we did a survey, we found that the area of most reader interest was the tips columns."

Like other popular software, AutoCAD is open for customization. People write their own menus and new commands by using the AutoLISP programming language. Also, a kit called Autodesk Developers Interface lets developers write device drivers, so graphics board or plotter manufacturers can write their own drivers.

"That's the single biggest reason for the phenomenal growth of AutoCAD, and we published a lot of that code," Cohn says. "Much of it comes in from our readers.

"We have a column called 'AutoCAD Cookbook.' Someone will write in, 'Why doesn't AutoCAD have this or that capability?' If it is of general interest, one of our AutoCAD users will take that question and write an AutoLISP program to add that capability to AutoCAD," he says.

As AutoCAD users become more sophisticated, so do their applications. The 30 or 40 lines of published code in the magazine have grown to 400 to 500 lines. "It is unreasonable to ask readers to copy all of that," Cohn says.

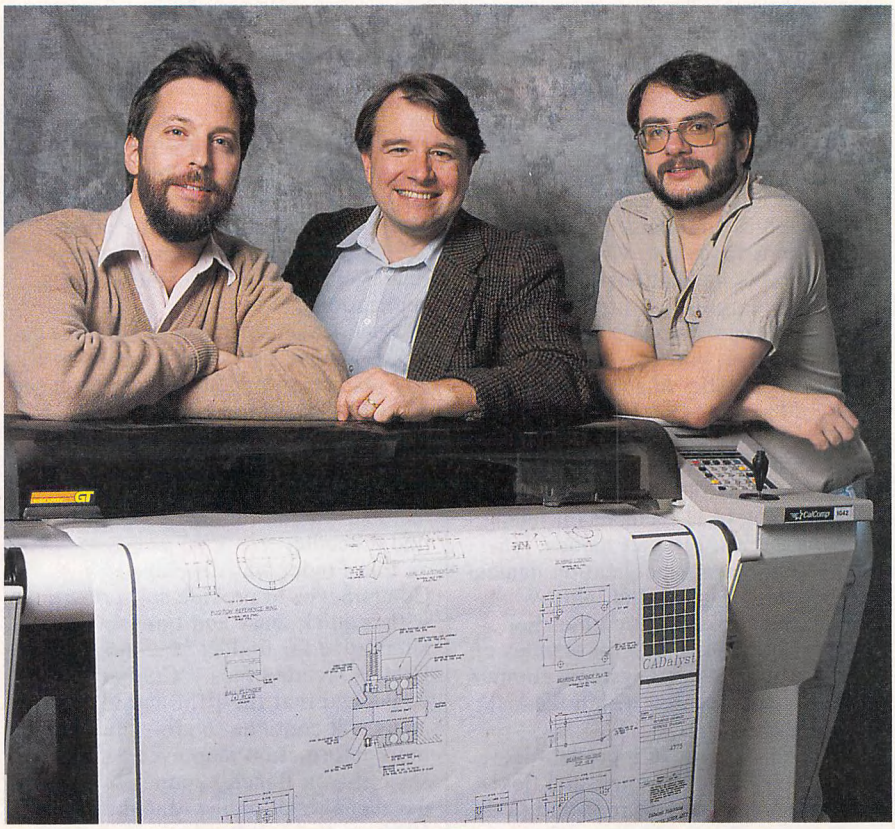
CADalyst's answer was to take all the code in the magazine and archive it as one file, which is then uploaded to CompuServe each month. New code can be found in Library 9, "What's New," and is moved to Library 2, "AutoLISP," after 60 days.

CADalyst code is popular among forum members. "Subscribers read the articles in print and then go to CompuServe to download it," Cohn says. With a keyword from *CADalyst*, it's easy to browse the libraries and locate the files.

Like so many other products of the computer industry, *CADalyst* started small—small enough to be produced on the diningroom table of its founder, Lionel Johnston, in Nelson, British Columbia. Johnston wasn't a journalist, but a furniture and set designer who became interested in AutoCAD and became an AutoCAD dealer in Canada. Similarly, technical editor Ralph Grabowski is an engineer, and Cohn a licensed architect. Neither started as a professional journalist.

The magazine was originally distributed with AutoCAD, but it no longer is. Circulation grew, and so did the number of pages. The magazine went from bimonthly to monthly, and from black and white to full color. Now it has offices in Vancouver and a staff of 11. In keeping with its "populist" origins, *CADalyst* still lists its staff members, from office assistant to publisher, in alphabetical order on the masthead.

Michael Naver of Baltimore, Md., is editor of Hi-Tech Alert for the Professional Communicator, *a newsletter advising corporate communicators and public relations counselors on uses of new technology. His CompuServe User ID number is 70007,621.*



Rick Erkin

Reader requests brought magazine's code online: *Cohn, Johnston and Grabowski*

Atari's FLASH Telecommunicates

by Mike Schoenbach

Three years ago, Alan Page purchased one of the first Atari STs shipped to Toronto, Canada. Page, a registered nurse at the time, recalls the experience as frustrating "due to the lack of software available at the time." He set out to remedy the situation.

Through the use of local bulletin board systems, Page met his programming partner, Joe Chiazzese, a computer science major at DeVry Institute in Columbus, Ohio. Neither Chiazzese nor Page had ever written a commercial quality program before, but they decided to undertake the project of creating a powerful telecommunications program for the ST.

ANTIC magazine's fledgling commercial software catalog became interested in the project, and with the guidance of Gary Yost, former director of *ANTIC*'s commercial software division, the first version of FLASH came to market. Released a little more than two years ago, FLASH quickly became the ST owners' leading choice for telecommunications software. It set the standards later adapted in other telecommunications programs.

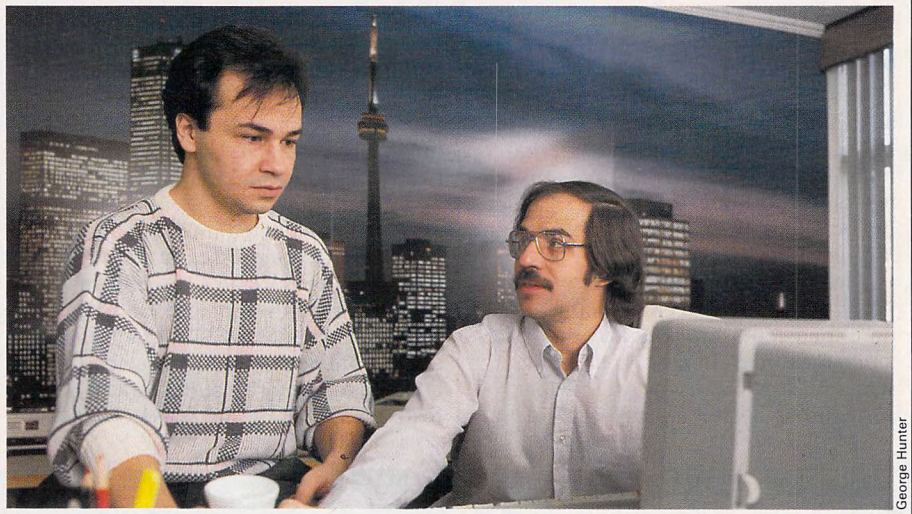
FLASH's array of powerful features offers flexibility. However, while it is a powerful telecommunications tool, FLASH is so easy to operate that novice users will not have trouble using its large assortment of commands and features.

FLASH accepts commands using any of three methods. ST users accustomed to entering commands through the GEM interface (via the mouse and pull-down menus) do not have to sacrifice that convenience, as FLASH fully supports GEM. Likewise, ST users who prefer command-line operation will find that it is fully supported in FLASH. FLASH also will accept commands entered by pressing the ALT key plus a single mnemonic key.

FLASH's Spectrum of Features

FLASH provides its users with a multitude of powerful features, including a large capture buffer, which automatically adjusts to the amount of RAM available in your computer, allowing you to capture an entire session for review or editing offline.

FLASH contains a built-in text editor that includes word wrap, cut-and-paste capability, text reformatting, and search-and-replace functions. A powerful scripting capability allows you to automate your online sessions.



George Hunter

FLASH creators linked STs through a variety of formats: *Chiazzese and Page*

Twenty programmable function keys can contain macros or frequently used FLASH commands. To make electronic conferencing a breeze, a type-ahead line contains a 50-line "history" buffer that allows you to scroll through any of the last 50 lines typed, with the added option of editing and resending any of the text. FLASH also supports baud rates of 110 to 19,200.

Other features include XMODEM CRC and Checksum file transfers, YMODEM batch uploading, ASCII and DC2/DC4 file transfers, DEC VT100 and VT52 terminal emulation, a "translation table" that allows you to filter incoming and outgoing characters, built-in ARC commands, and the ability to run other programs from within FLASH.

Many features available in FLASH were designed specifically for use with CompuServe, including full VIDTEX cursor-positioning support and RLE graphics compatibility. FLASH also offers CompuServe's B and enhanced B file-transfer protocols.

Online FLASH Support

CompuServe subscribers will find many utilities that can be used in conjunction with FLASH in Library 2 of the Atari ST Productivity Forum (GO ATARIPRO). Use the command BRO KEY:FLASH to retrieve related files. Some "must haves" include:

- AUTODL.DO, an executable "DO" file written by Alan Page to automatically download a list of files you provide from any forum libraries.
- FLASH.HNT answers some of the most frequently asked questions about FLASH.
- PATCH6.ARC contains the files necessary to update FLASH versions 1.51 and 1.52 to the current version 1.60.
- BRO.DO, an executable "DO" file, will go through all the libraries of a forum to scan for new files.

Atari Forum members frequently upload their latest FLASH utilities for use by other FLASH users. Alan Page is a regular visitor. He is online almost every night to answer questions about FLASH and to provide assistance. You can contact him in the Atari ST Productivity Forum at User ID number 72227,3507. Scot Tumlin, who provides technical support for *ANTIC*'s commercial software, can be contacted online at User ID number 76703,2000.

The Future of FLASH

There are more than 25,000 owners of FLASH, according to *ANTIC* magazine. Since its original release, FLASH has gone through six updates.

What does the future hold for FLASH? According to Page, "We are looking at a much improved editor with multiple buffers. The capture-buffer editor is a popular feature, and we want to keep updating it. Other features we are discussing are loadable file-transfer protocols and a remote mode." Page also is working closely with CompuServe to bring new CompuServe technologies to the ST user.

Mike Schoenbach is a free-lance writer based in North Bellmore, N.Y. His CompuServe User ID number is 76703,4363.

Borland Throws a Party

by Brian D. Monahan

You've heard of Turbo Pascal, Sidekick Plus, Quattro and other software products created by Borland International, and now you're hearing whisperings of Turbo Jazz. *Turbo Jazz?* Could this be a new Borland product ready to burst into the marketplace?

Turbo Jazz, Borland's inhouse company band, provided entertainment to more than 150 users who accepted the company's invitation to a party in Scotts Valley, Calif., on August 6. Borland has hosted a party each of the four years it has been on CompuServe to show its appreciation to its customers and developers who use CompuServe. Borland handed out free T-shirts and CompuServe provided usage credits to those who attended from the United States and Canada, and from as far away as England.

The day included a tour of Borland's new facilities; addresses by David Intersimone, Borland's director of research and development, and Kathy Gerber, CompuServe's product manager of online computing services; and a picnic at a nearby state park. "Such festivities increase the sense of community that already exists on the Borland Forum," says Gail Meisner, primary administrator of the Borland Applications Forum (GO BORAPP).

But more than a gracious host, Borland International is one of the world's leading publishers of microcomputer software. More than 2 million copies of its software have been sold during the last three years. Turbo Pascal, the first compiler that was reasonably priced for the home user, is dominant in high schools and colleges across the county for teaching Pascal. Sidekick was one of the first memory-resident programs. While it is still popular, Sidekick Plus offers even more features. And Quattro, Borland's spreadsheet, has received favorable reviews.

Because Borland products are so popular, it is not surprising that the Borland Forum (GO BORLAND) is one of the more popular forums on CompuServe. It provides information on the company's new products and on research-and-development activities. The same product support that you can get over the telephone is also available online for questions on upgrades or even individual business matters.

It is in the product forums (Options 7, 8 and 9 from the main menu), however, where users probably will spend

An Ideal First Stop: Novell's New Forum Responds to Users

by Matthew Burns

Users of Novell products now can turn to one another for support in the Novell User Forum, a surcharge-free forum introduced last September in response to requests from customers.

The Novell User Forum (GO NOVUSER) and the Novell Forum (GO NOVFOR) are part of an online network of support services known as NetWire (GO NOVELL).

"We found that customers appreciated the direct link to Novell available through the Novell Forum, but they needed a user-to-user support group, too," says Craig Taylor, vice-president of corporate, government and user relations for Novell Services.

"The Novell User Forum is a place where users can compare notes with one another," says Taylor. General questions on product installation and operation are readily fielded by other Novell users experienced with the same product or equipment.

While not employees of Novell Services, administrators in the Novell User Forum offer expertise seasoned by years of hands-on experience with Novell products. In addition, the forum's administrators have an understanding of many products designed to complement or operate in tandem with Novell products.

In comparison, the Novell Forum is staffed by employees of Novell services. "Users come to the Novell Forum when they need an official Novell-authorized response," says Taylor. Be it a bug fix, a software patch or a guarantee of equipment compatibility, administrators of the Novell Forum provide users with support that has the full backing of Novell Services.

Which forum should a Novell user visit? That depends. The diverse background of users who frequent the Novell User Forum, the experience of the forum's administrators, and the fact that there is no surcharge to use the forum make the Novell User Forum an ideal first-stop resource.

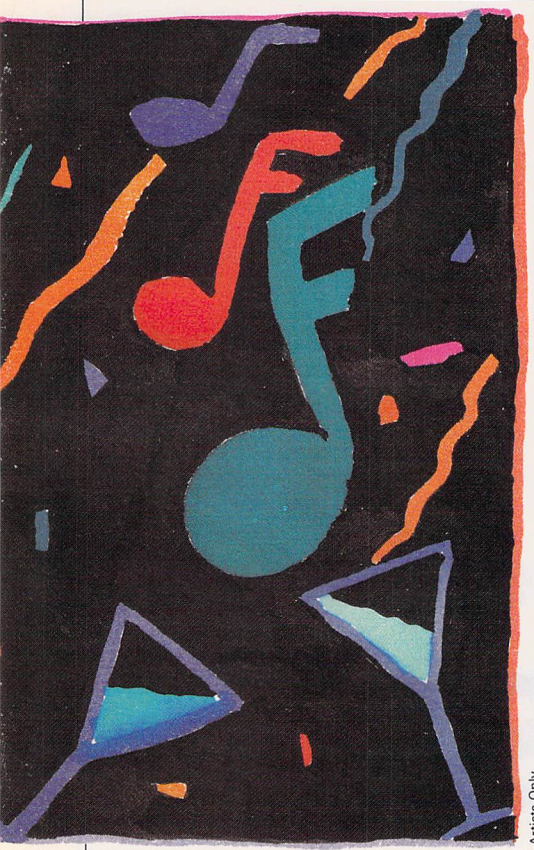
When a user needs to communicate directly with Novell, however, a visit to the Novell Forum is in order. Although the two forums are separate, they work together to ensure that users get the support they need.

Members of the Novell User Forum use the message board to exchange questions and answers, tips and general information related to hardware, software and support.

The libraries in the Novell User Forum house files containing programs and text related to Novell and Novell-compatible products. The libraries also contain one-of-a-kind software applications that can be downloaded at no charge. "Some organizations develop applications for their own use and later offer them as public-domain programs," says Taylor. The libraries' holdings include software patches, utilities, textfiles and programs, most of which can be downloaded in minutes.

As in other forums, the Novell User Forum offers online conference rooms for both scheduled and impromptu conferences.

Taylor cites the scope of resources available in the forum and the ease with which they can be accessed as key reasons behind the success of the forum. "The Novell User Forum reflects Novell's ongoing commitment to provide quality support to our customers."



Artists Only

the most time. There are two programming forums: the Borland Programming Forum A (GO BPROGA) for Turbo Pascal, and BASIC; and the Borland Programming Forum B (GO BPROGB) for Prolog and C. An applications forum covers Quattro, Sidekick and Borland's many other products.

Both the programming and the applications forums offer direct access to Borland personnel through the active message boards and conferencing areas and the forum libraries. Just as important, these forums give you a direct link to thousands of users worldwide.

Users may visit the forums for the camaraderie, for the helpful ideas that are found there or for answers to specific questions. To get technical assistance, leave a message addressed to the "sysop." The message should include the name of the product and the area of difficulty. On weekdays, you can expect an answer within 24 hours. On weekends it may take a bit longer, but it is not uncommon to get an answer within hours.

The forum libraries contain useful public-domain files that can be downloaded and used immediately. The programming areas offer articles that explain programming techniques or strategies as well as downloadable routines for specific tasks. The library in the applications area provides routines or "add-ons" for Borland's applications products, such as PAL2.INF, which features easy searchability and flexible auto-repeats and can be used as an enhancement to Sidekick's calendar function or as a stand-alone program.

Although you may have missed Turbo Jazz last summer, odds are they'll be around again this year. So keep your ears open. And when those whisperings begin again, you'll know it's not time to go to the store, but to a party.

Brian D. Monahan is associate vice president of Iona College in New Rochelle, N.Y., where he also teaches computer science courses. His CompuServe User ID number is 70007,3000.

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News you can choose

Nonstop Global Coverage Delivered Online

by Cathryn Conroy

When CompuServe subscriber Gay Spencer learned that her father-in-law, Lauro Cazos, had been selected by former President Reagan to succeed William J. Bennett as the US Secretary of Education, she set up a special clipping folder on the Executive News Service to capture all of the articles that appeared announcing his appointment. Because of her easy and affordable access to such a unique news service—five news sources covering everything from high finance to high baseball scores—Spencer finds herself as the family's historian and scrapbook keeper.

The Executive News Service is a powerful compendium of major national and international news stories gathered by the world's premier news organizations and updated continuously. Perhaps the most useful feature of the Executive News Service is that it allows receipt of news in an organized fashion. Access to ENS is much like having your own wire service machine that brings you day and night the latest developments worldwide.

But unlike the wire service machines used by leading newspapers and radio stations around the globe, ENS will automatically sort through the mountain of news to give you just those stories you want to read. This electronic form of information management is the true power of ENS.

High-Tech Information Management

The sheer volume of news stories that daily passes through ENS is overwhelming. Hundreds of articles from The Associated Press, *The Washington Post*, McGraw-Hill News, Reuters Financial Report and OTC NewsAlert are submitted. Although it is possible to scan the latest news from each of these services (type SCAN CURRENT AP, SCAN CURRENT WP, SCAN CURRENT RT, SCAN CURRENT OTC and SCAN CURRENT MH to see how it works), this method will give you *all* the news. That is often just too many articles to read and definitely too much information to manage.

For instance, if you want to monitor the committee meetings in the US Senate and the House of Representatives, you can get that information from *The Washington Post*. Electronically scanning *The Post* to find the listing will take several minutes each day. But if you set up a "clipping folder," that listing will automatically be dropped into it as soon as *The Post* publishes its online edition in the wee hours of the morning.

A clipping folder gathers the news that interests you. Articles are selected based on keywords and phrases you assign to each folder. When you log on, the news is there, telling you about corporate changes that may influence

an investment decision, or offering the highlights of a presidential speech.

The Executive News Service is the only service of its kind, allowing you to predefine the news you want, capturing it and storing it until you are ready to read it. You don't have to perform complicated searches each time you go online because the system does this automatically, giving you the specific news you want, when you want it.

ENS is also unique because it simultaneously draws on the resources of five news organizations, each approaching the news from different expert vantage points.

The Associated Press

More than 1 billion people read or hear an Associated Press news story each day. With nearly 150 offices in the United States and more than 100 in foreign countries, AP is able to offer first-hand accounts of news from every corner of the globe.

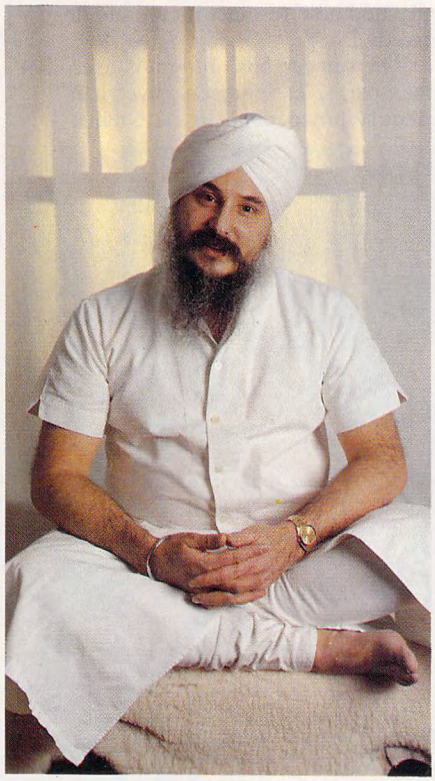
As the largest and oldest news-gathering organization in the world, AP offers CompuServe subscribers the same access to its wire stories as it does the nation's newspapers and radio and television stations. The difference is that ENS subscribers sometimes can read it hours before it appears in print. In addition, with ENS you receive the unabridged version of the article; newspapers are often forced to trim AP copy because of space restrictions, while broadcasters often have time constraints that limit the amount of detail they can provide in a news report.

Guruka Singh Khalsa recently put AP's international news coverage to the test. Khalsa, a research associate in subatomic particle physics at Ohio State University, is active in the Sikh community in Columbus. He operates an electronic bulletin board system, called SikhNet, that serves as a worldwide online link for those of this religious community.

Like many American Sikhs, Khalsa sends his 9-year-old son to school in India, where this past August there was a devastating earthquake. While news reports from traditional sources were sketchy, Khalsa consulted the Executive News Service and found in his clipping folder a story that completely and accurately described the area hit and the level of destruction. The school his son attended and its students were safe. Khalsa immediately let the others in his religious community know the good news.

"The depth and breadth of information AP provides is simply not matched anywhere else in the news business," says Chris Pederson, sales manager of information services. "We have the resources to go beyond any other news organization. Our primary business is serving newspapers and broadcasters, and in a sense the Executive News Service benefits from all of the effort AP puts into its core business."

This effort is crucial to the needs of Kim Serkes, a San Francisco-based photographer, who tracks news articles that are critical to his business. Serkes,



AP wire saved the day: *Khalsa*

who specializes in selling stock images of travel destinations and nature subjects, often travels to Central and South America. He describes the Executive News Service as a valuable supplement to the newspapers. "The ability to track a developing story during the day is important to me. The successive 'takes' give more information than radio news, which is the only other way to follow a breaking story," he explains.

The Washington Post

The Washington Post is the only ENS news source that is also a daily newspaper. But Washington, D.C., is unlike any other city in the United States. Because it is the nation's capital, news events occurring there affect more than the local residents. Reporting, understanding and analyzing the inner workings of the government from Capitol Hill to the White House to the Supreme Court are the unique strengths of this newspaper.

"Whether you are in business or finance, science or technology, government or politics, or an entrepreneur, what happens in Washington matters to you," says Beth Loker, *Washington Post* vice president. "*The Post* is the best source for this information. And ENS lets you tailor *The Post* coverage to suit your particular needs."

A special online edition called *The Washington Post Newsletter* is prepared daily with more than 50 news stories that impact the world. Articles are available between 3 a.m. and 5 a.m., hours before the residents of Washington pick up the paper from their doorsteps.

Uldis Adamsons relies on *The Washington Post Newsletter* as he searches

Clip and Save: ENS Opens Access

During the month of January, all CompuServe subscribers will have access to the Executive News Service, an electronic compendium of five major news sources that is normally available only to Executive Option subscribers.

Type GO ENS to explore the features of this in-depth news service. Set up clipping folders at the beginning of the month, and check in daily to get the news long before it reaches more traditional news publications.

If you find you cannot live without it, become an Executive Option subscriber and have continuous access to ENS. To do this, type GO BILLING and select Option 6, "Order Executive Option." Executive Option subscribers receive numerous features and advantages that are not otherwise available, and these are fully explained in the online ordering section. If you want to become an Executive Option subscriber, be sure to sign up before Feb. 1 so your ENS clipping folders will remain intact.

The Executive News Service carries a surcharge of $15 an hour. Executive Option subscribers are charged a $10 per month minimum usage fee that can be applied to any CompuServe service.

—CDC

ENS for articles related to national security issues. The Springfield, Va., resident works for the General Accounting Office in the National Security and International Affairs division. Adamsons consults ENS because it is essential that he have up-to-the-minute information in specific and variable subject areas, including military operations, personnel and information security.

"My other sources are daily, weekly, monthly and quarterly printed news media. Each meets a need, but none provides the timeliness and focus I get from the ENS clipping service," Adamsons says.

"I've been impressed with the week-to-week steady flow of useful information. It's usually hours or days ahead of other sources, putting me on notice to check those sources or to go directly to the people involved. Sometimes I just find a detail in ENS that wasn't reported elsewhere."

Adamsons says being an ENS subscriber makes him feel like he is in "the loop." Because various news services monitor each other, he often has television or newspaper reporters call him about wire service stories they read. Being part of ENS, he has the same story. "Knowing what information the reporters have saves me time and helps clear up occasional errors in the coverage," he says.

McGraw-Hill News

Business news with a unique perspective is the strength of McGraw-Hill News. Users find in-depth articles covering companies and industries, stock market activity, the economy, international markets, and legislative and regulatory activity. But when a major event occurs, McGraw-Hill News does more than just report what happens. It also draws on the expertise of economists, stock market analysts and industry-smart editors from the more than 80 McGraw-Hill business newsletters and magazines to put the news in perspective.

"Analytical pieces talk about the news' effect on an industry, or its impact on a company's stock price, key competitors to watch, similar products being marketed and other related items," says Julie Denny, manager of marketing and sales at McGraw-Hill. "Such articles deal not only with the raw news, but also with its implications for the business community."

A graph or chart is featured when it will help the reader better understand the news or place statistical items in context. Because the graphs are produced in ASCII characters, no special software is needed to view them.

McGraw-Hill News' real strength is its specialized subject area: business news. You won't find a weather report or news of a disaster, but you will find in-depth, objective and real-time business news that is simply not available in the general information news wires. Denny says that McGraw-Hill News is distinguished by the fact that it is the only electronic news service specifically designed for the online community and able to meet its unique demands.

The service has numerous uses. For example, sales representatives can identify prospects or track clients;

Greg Miller

'Historian' builds scrapbook: *Spencer*

marketing professionals can perform competitive market analysis; planners can review acquisition candidates; financial wizards can monitor tax legislation or foreign exchange rates; public relations executives can follow the coverage of their own firms; economists can review economic indicators; and the personal investor can track portfolio developments and keep a close watch on the stock market's ups and downs.

Gay Spencer uses McGraw-Hill News as a way of keeping current in a rapidly changing profession. As a graduate student in labor relations at Ohio State University, Spencer relies on the Executive News Service's business wires to keep her up-to-date on important developments in labor mediation and judicial mediation. "My main interest is in the process of the mediation, so I follow the news of companies who are in contract negotiations as well as general labor relations developments," she says.

It would be impossible to get the same news from printed journals or newspapers, according to Spencer. The daily newspaper in Columbus doesn't have all of the news she needs, and professional journals are printed long after the events occurred.

As a former radio station news director, Spencer grew accustomed to having a wire service machine next to her desk. "I'm a real news junkie. I like having ENS because I don't have to dig for things. It is so handy to have it all collected for me automatically."

Dale Lewallen, by day a finance officer with First Interstate Bancorp. and by night a free-lance writer, uses the Executive News Service to spark his imagination. He writes a monthly magazine column on high-tech aids for the disabled and uses such services as McGraw-Hill News to find out about the latest devices that can enhance the lives of the handicapped. If it were not for the clipping service, he would be forced to paw through daily newspapers finding story leads.

Reuters Financial Report

The latest high-finance wheelings and dealings from Tokyo to London to New York as well as a host of other major financial centers worldwide are expertly reported by Reuters. Designed primarily for the professional stockbroker, Reuters news stories focus on individual companies, governments, foreign exchange markets, the US stock market and how other types of markets affect the price of a company's stock.

In addition, corporate news includes up-to-the-minute information on earnings, dividends, acquisitions, executive changes and other pertinent facts. Reuters is the only financial news reporting service that offers complete coverage of all the international financial markets.

Because those markets are influenced by news events around the world, knowing the news before it is widely reported to the public can give the serious investor a jump on the market. Having access to important economic indicators minutes after they are released in Washington or knowing what the president said at an impromptu

news conference can make a difference when it comes to making (or losing) money. Knowing the news first offers investors a quick window of opportunity.

"We offer thorough coverage of publicly traded companies and accuracy in news reporting," says Jim Outman, Reuter's deputy manager of the media group. "Because customers rely on our news reports to make investment decisions, it is important to provide accurate, in-depth information."

OTC NewsAlert

Investors interested in the over-the-counter stock market will find OTC NewsAlert an indispensable source for instant information on more than 16,000 NASDAQ and pink sheet companies. News includes SEC filings as well as initial public offering data, which is often difficult to locate.

OTC NewsAlert is unique because it offers not only the hard news about major firms, but also the hard-to-find news about small and even obscure companies. Without OTC NewsAlert, obtaining information on these organizations is difficult; with it, investors can track trends and spot opportunities in a dynamic market.

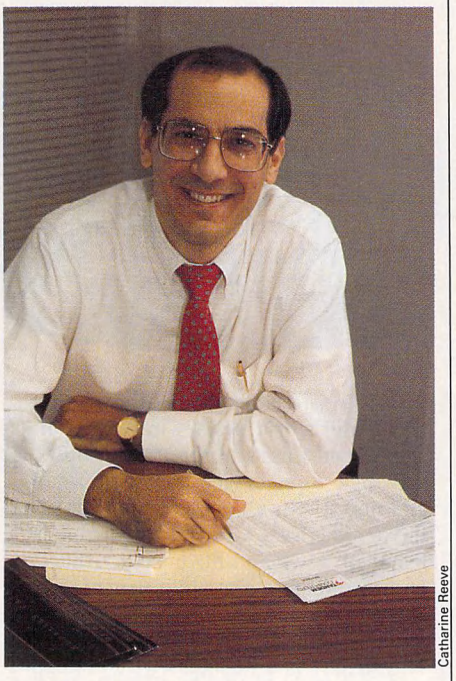
In addition to being part of the Executive News Service, OTC NewsAlert is also available as a searchable database (GO OTCNEWS). Both areas have specific advantages. According to Pamela Morris, product manager, the searchable database is best used for researching background on companies. Information is retrievable by company name or ticker symbol for up to six months.

Using OTC NewsAlert in ENS is valuable for alerting investors to changes in industries or products. "Clipping files containing industry keywords along with company names can sometimes indicate an industry trend," says Morris.

There are many ways to use OTC NewsAlert. Some investors may watch for company, industry and product information that can offer insight into price trends. Corporate information officers might use the information to determine the future growth path of companies within the same industry. In addition, stockholders can get financial data about their holdings long before it appears in print.

Steven Stern, vice president and manager of computer services for JMB Realty in Chicago, uses the financial news sources on the Executive News Service to track mentions of his company as well as news about vendors the firm is negotiating with or whose financial condition is of concern. "Items about my company are posted on bulletin boards for everyone to read, because they usually precede similar stories in *The Wall Street Journal* or *Chicago Tribune*," he says. "Items about vendors are filed away for future reference or sent to their sales representatives for a response."

Stern says that ENS is able to catch important financial news that he could miss otherwise. "I read many trade magazines, newspapers and news periodicals, but it's easy to overlook items in all that volume."



Catharine Reeve

Tracks company's financial doings: *Stern*

Tips from the Experts

Whether your news needs are general, personal, political, financial or business-related, the Executive News Service can meet them. But it does need some direction from you. Although a complete tutorial on setting up a clipping folder accompanies this article, there are important tips and techniques for using ENS that the experts—the daily users—can best provide. By taking the time to carefully plan your news-gathering strategy, the time you spend in the Executive News Service will be more efficient and productive.

First, carefully define your keywords and phrases, taking full advantage of the new Boolean logic feature (this means that you can use connectors, such as AND—indicated by a plus sign—and OR—indicated by a minus sign—to include and exclude concepts and generally clarify your search). This is the hardest part of using ENS, but also the one that reaps the greatest benefits. "The bottom-line secret is to be as narrow as possible in your keyword description," says Spencer.

"People can become discouraged when their folders are overrun with stories. It's important to think carefully about how to set up search criteria and to set a narrow search field," says Khalsa. He advises users not to try to put everything in one folder, but rather to make several folders, each with a narrow focus.

Remember, too, that once the keywords and phrases are defined, they are not cast in stone. They can and should be changed to better define your purpose in news-gathering. Adamsons recalls that when he first created his keywords he used terms such as NATIONAL DEFENSE. "The resulting deluge was like a drink from a fire hydrant! Narrowing to specific terms such as LIE DETECTOR and CLASSIFIED INFORMATION provided useful stories with a minimum of chaff."

He also recommends using the story leads and headlines as a way of quickly scanning clipped stories. He says that by doing this he is able to scan several days' worth of accumulated stories in three folders in just two or three minutes. "Then I just read the specific stories I want," he says.

Enter the ENS World

This month, the Executive News Service is open to all CompuServe members. That means whether you're an Executive Option subscriber or not, you have the opportunity to enter this world of up-to-the-minute news coverage. Set up a clipping folder and take in the wealth of AP, Reuters Financial Report, McGraw-Hill, OTC and *The Washington Post* while others patiently wait for newspaper delivery and the evening news program. Be the first to get updates out of Washington, D.C., Wall Street and the business community. More so, take the chance to find out why Serkes, Lewallen, Adamsons, Khalsa, Spencer and others depend on this unique method of custom-tailoring news coverage.

Cathryn Conroy is an Online Today *contributing editor from the Washington, D.C., area. Her CompuServe User ID number is 70007,417.*

Predefining Your News:

How to Create a Clipping Folder

by Charles Bowen

Years before SDI stood for Ronald Reagan's "Star Wars" plan (as the "Strategic Defense Initiative"), those letters were well known in some parts of the online information world, because they signified a different, more peaceful technology. To librarians and serious computerists in the late 1970s, SDI was "selective dissemination of information," a rather unwieldy name for a simple yet powerful new way of getting information from massive databases.

Some databases—such as news wires and electronic reservoirs of publications—were constantly growing, with new data being added continuously. While older database tools for browsing, reading, scanning and searching files still were useful, a need also existed for keeping tabs on these regular additions. With SDI, the user could write a profile of the information needed, specifying keywords and phrases. Then, as new data was added, the system automatically searched for the interests specified in the profile, making note of the new files so they could be announced at the user's next log-on.

While these days SDI is heard in political and military circles more often than among computer researchers, the original idea is alive and well online. It is implemented on CompuServe in the Executive News Service, which provides access to current news from The Associated Press, *The Washington Post*, OTC NewsAlert, Reuters Financial Report and McGraw-Hill News. Using the SDI concept, ENS can automatically save in your electronic "clipping folders" any stories containing keywords and phrases about subjects that you want to follow.

To use ENS, you first must sign up for the Executive Option, which provides a number of additional business-related services. (Because of a special promotion this month, all CompuServe members can access the Executive News Service.) For details about the Executive Option, type GO EXECUTIVE at any prompt. ENS also carries a $15-an-hour surcharge at all times over the base connect-time charges.

Once signed up, you can use the feature by typing GO ENS, which displays:

```
Executive News Svc.
 1 Introduction to the
   Executive News Service
 2 Review Current News
 3 Review Late Breaking News
 4 Create/Change/Delete a Folder
Enter choice !
```

Options 2 and 3 allow you to browse current and late-breaking news. Choose either option and the system prompts you to identify the wires to scan:

```
Executive News Svc. Wire Selection
 1 AP US & World
 2 AP Sports
 3 AP Financial
 4 Reuters Financial Report
 5 McGraw-Hill News
 6 OTC NewsAlert
 7 The Washington Post
Enter choices separated by commas
```

The Associated Press offers its national and world news wires, as well as sports and financial reports. Reuters is a British wire service providing financial news with a decidedly international flavor. McGraw-Hill is a major publisher of news and business journals and magazines, including *Business Week*, and its McGraw-Hill News Service specializes in news analysis. OTC NewsAlert is a business wire concentrating on news of companies traded over-the-counter in the stock market. *The Washington Post* offers selected stories from the day's morning edition.

After you enter your selections, ENS finds the requested stories and asks how to display them:

```
Executive News Svc.
48 stories selected
 1 Scan by story titles
 2 Scan by story leads
 3 Read all stories
Enter choice !
```

Option 1 produces a menu of stories by titles. You then select the stories to read. Option 2 shows you the opening three lines of each story and prompts for the numbers of the ones you want to read. Option 3 skips the intermediate step by displaying the text of each story already found.

While browsing the wires is fine for some applications, that isn't where ENS shines. What the feature does best is electronic clipping. Suppose you want to follow developments in the space program. You can set up a folder to capture space-related news as it is transmitted over the various wires. Stories stay in the folders until your next visit to ENS.

To create a folder, start by selecting Option 4, "Create/Change/Delete a Folder," from the main ENS menu. The system displays:

```
Executive News Svc.
 1 Create a Clipping Folder
 2 Change a Folder
 3 Delete a Folder
 4 List a Folder
Enter choice !
```

Choose Option 1, "Create a Clipping Folder." The system asks you to name the folder, using up to 10 characters, such as SPACE. The system then prompts for an expiration date.

Enter the date in the common numbers/slashes format, such as 12/30/89. A folder can exist for up to one year. After that, you are prompted for the number of days to retain clipped stories. If you plan to check in every other day, type 2.

Now choose the news resources and subjects to clip, starting with this menu:

```
Executive News Svc.
Folder SPACE Mode is INCLUDE
News Wires Selection
 1 AP US & World
 2 AP Sports
 3 AP Financial
 4 Reuters Financial Report
 5 McGraw-Hill News
 6 OTC NewsAlert
 7 The Washington Post
Enter choice or <CR> to continue !
```

You may select a single wire or more than one; enter the numbers separated by commas. For the SPACE folder, we might select 1,4,5,7.

Next ENS prompts for up to seven keywords or phrases, such as NASA, LIFTOFF, ROCKET, SPACESHIP and SPACE SHUTTLE. Phrases may be up to 80 characters long and may use some sophisticated commands. For example:

- An asterisk is a wildcard, so ASTRONAUT* clips stories containing "astronaut," "astronauts," "astronautic," and so on.
- You also may qualify your phrase with a plus sign to require two or more words or phrases be clipped, such as BUDGET + AEROSPACE.
- To indicate that a story should be clipped if it contains one keyword but *not* another, use a minus sign, such as SPACE - PARKING.
- To clip a story that matches any of two or more phrases, use the | sign, as in SPACE | ROCKET | NAUT.

When ENS stores the SPACE folder, it is ready to go to work. From then on, it monitors the specified wires, setting aside any stories that contain at least one of your keywords or phrases. Note that each phrase is scanned independently, so stories do not have to contain *all* keywords or phrases to be selected. To read the clipped news anytime you are online, type GO ENS. Notice that the system has revised the main ENS menu:

```
Executive News Svc.
  1 Introduction to the
    Executive News Service
  2 Review Current News
  3 Review Late-Breaking News
  4 Create/Change/Delete a Folder
  5 Review folder SPACE (6 stories)
Enter choice !
```

If you choose Option 5, "Review folder SPACE," the system gives you this menu from which to scan and read your clipped stories:

```
Executive News Svc.
6 stories selected
  1 Scan by story titles
  2 Scan by story leads
  3 Read all stories
Enter choice !
```

You also can revise or delete a folder by choosing the "Create/Change/Delete" option. It allows you to add and delete keywords and phrases and news wires. Note that the revision option also lets you change the expiration date and the retention days.

Charles Bowen, an Online Today *contributing editor, co-authored* How to Get the Most Out of CompuServe *and* CompuServe for IBM PC Power Users. *His CompuServe User ID number is 70007,411.*

Artists Only

How to Create Keywords, Phrases

Sophisticated commands for narrowing and broadening keywords and phrases in the Executive News Service's clipping folders can be mixed and matched in some interesting ways, using parentheses to enclose complex concepts. Some examples:

OHIO ST* + FOOTBALL finds stories containing both the phrase Ohio St and the word football.

MERRILL LYNCH—(DAILY TREASURY INDEX|TELERATE) lets you follow Merrill Lynch announcements, such as initial public offerings it is underwriting and corporate news on itself, but not daily reports on its bond index.

MERRILL LYNCH—(CAPITAL MARKETS) finds stories on Merrill Lynch but not those regarding the initial public offerings it is underwriting.

APPLE + COMPUT* finds any story containing both the word apple and any variation of comput. Because both combinations are required, it avoids stories dealing with apple growers and those about computers other than Apple's computers.

COMPUT* + (SECUR*|CRIME|PRIVACY) finds stories containing variations of comput, and one or more of the words secur*, crime and privacy.

COMPUT* + (VIRUS–DISEASE) finds stories containing variations of comput and the word virus, but not the word disease.

—CB

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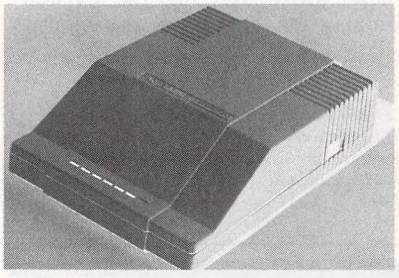
Incomm modems are now available at Communications Electronics Inc. at a special price. The internal modem order # **MINT-T** is only $119.95 each. The external modem order # **MEXT-T** is only $129.95 each. Add $9.00 per modem for shipping and handling to the continental United States.



GENERAL

The Midget 2400* is a 300/1200/2400bps, auto dial, auto answer modem which can operate at half or full duplex over the switched dial-up network or on a 2 wire leased line. At 2400 bps it is async, CCITT V.22bis compatible. At 1200 bps it is async, CCITT V.22 or Bell 212A compatible. Finally, at 300 bps async it is CCITT or Bell compatible.

DIALING

The modem is fully compatible with the "AT" command and register set at all speeds and uses the "AT" 2400 commands for asynchronous operation making the Midget 2400* compatible with virtually all IBM* PC communications software. An internal speaker with software selectable volume is included.

PERFORMANCE

The Midget 2400* automatically adjusts itself to match the terminal's (or computer's) baud rate, parity, and stop bits. The default setting is CCITT 2400 bps but all parameters can be changed in the modem's non-volatile memory by using the extended "AT" command set.

DIAGNOSTIC CAPABILITY

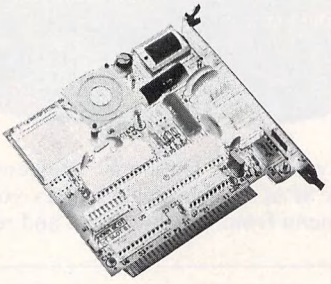
7 status LED's are provided: AA (Auto Answer), RI (Ring Indicator), OH (Off Hook), CD (Carrier Detect), TD (Transmit Data), RD (Receiver Data), DTR (Data Terminal Ready). Switches are provided to control. SWI (Dumb Mode), SW2 (DTR Control), SW3 (CD Control). The modem runs through a self test when powered on and incorporates analog and digital loopback.

OPERATION:	Full duplex async.
DATA RATES:	Asynchronous 2400, 1200, or 300bps.
MODULATION:	FSK, PSK, and QAM.
CHARACTER FORMAT (ASYNC):	8, 9, or 10 bits including start and stop bits.
TRANSMITTER OUTPUT LEVEL:	Permissive: – 10 dBm +/– 1 dBm
RECEIVER SENSITIVITY:	On: – 43 dBm Off: – 48 dBm Hysteresis: 2dBm minimum
EQUALIZATION:	Automatic adaptive.
DIAGNOSTICS:	Self test analog and digital loopback.
DIGITAL INTERFACE:	E1A RS232C
VF INTERFACE:	7' cable with RJ-11 jack.
SIZE:	6½" x 4½" x 1¾" (L x W x H)
POWER:	100-130 VAC

$119.95

MIDGET PC 2400® FEATURES

- Fits in half slot of IBM PC/XT/AT and 386 computers
- 300, 1200, and 2400 bps asynchronous
- Auto Dial, auto answer
- Bell 212A, 103 and CCITT V.22bis and V.22 compatible
- On-board speaker
- Remote and local diagnostics
- Call progress monitoring
- Works with virtually all popular software programs
- Digital signal procesing for clear error free transmission
- Fully "AT" compatible
- Com ports 1, 2, 3, 4
- Zero wait state (20MHZ+)
- Non volatile memory (RAM)
- 5 Year Limited Warranty
- Made in U.S.A.



GENERAL

The Incomm Midget PC 2400® is a 4½" board modem designed to fit in any slot of IBM PC/XT/AT and 386 computers. It operates at 300, 1200 and 2400 bps asynchronously and is auto dial, auto answer. At 2400 bps it is CCITT V.22 A/B, V.22bis and Bell 212A compatible. At 300 bps it is Bell 103 compatible. Call progress is monitored on the screen as well as by a built in speaker. It can operate with most communication software packages such as Crosstalk XVI, etc.

DIALING

Dial protocol on the Midget PC 2400® is FULLY "AT" compatible including 27 "S" registers and a speaker. A second RJ-11 jack permits connection of a telephone set through which calls can be manually dialed. The telephone can be used for voice communication when the modem isn't in use.

PERFORMANCE

The Midget PC 2400* incorporates high speed digital signal processing that allows clear, error free transmission regardless of phone line connection.

DIAGNOSTICS

The modem can perform local analog and digital loopback tests, plus remote digital loopback tests. It incorporates a self test pattern generator, plus integral detector with counter which can be used with the loopback tests.

Data Rates:	2400, 1200 and 300 bps
Modulation:	QAM in 2400 bps operation, and 1200 bps, FSK in 300 bps operation
Character Length:	10 bits
Digital Interface:	IBM PC/XT/AT Bus & 386 computers (COM1/COM2/COM3/COM4)
Vf Interface:	USOC-RJ11C Modular Phone Jack
Transmit Level:	– 10.5 +/– 1.5 dBm
Bit Error Rate:	Less than 10 ppm @S/N 12 dB
Automatic Disconnect:	30 Sec (Register S7 Default)
Loss of Carrier Disconnect:	1.4 Sec (Register S10 Default)
Compatibility:	V.22 bis, V.22 A/B and Bell 212A/103
Equalization:	Transmitter: Fixed Compromise Receiver: Automatic Adaptive
Carrier Detect ON to OFF Level:	– 48 dBm
Carrier Detect OFF to ON Level:	– 45 dBm
Delay OFF to ON:	60 ms + 5 ms
Delay ON to OFF:	155 ms + 50 ms
Size:	4.2" x 4.5"

SPECIAL

SPECIAL COMMUNICATIONS DEAL!
With the purchase of any modem from CEI, you can get a cable to connect your modem to an Apple Mac computer and a 3½" diskette with communications software for only $19.95. Order # **COMD-T.**

CONTROL COMMANDS

Control Command	Code	Function
ESCAPE	+ + +	During asynchronous connection, return modem to command state during a connection (without hanging up). (To change a baud rate, for example).
GO ON LINE	0	Return to on-line state after a + + + command.
ANSWER	A	Send answer tone and try to connect with modem calling in.
HANG UP	H	Hang up phone (go on hook).
ECHO	E	E or E0 = select no echo (normal for full duplex transmission). E1 = echo commands to screen.
SPEAKER	M	0 = no speaker 1 = speaker ON during dialing 2 = speaker always ON
SPEAKER VOLUME	L	0 or 1 = low volume 2 or 3 = high volume
PRODUCT CODE	I	0 = product code revision level 1 = checksum of ROM 2 = checksum OK
RESET MODEM	Z	Soft reset — almost like turning modem OFF and ON.
BELL/CCITT	B	0 = use CCITT signals 1 = use Bell signals

REGISTER/VIEW CHANGE COMMANDS

Register	Function
S0	Allows number of rings before AUTO ANSWER. (S0 = 0 is NOT auto answer)
S1	Counts number of rings.
S2	Escape Code character.
S3	ASCII character for carriage return.
S4	ASCII character for line feed.
S5	ASCII character for backspace.
S6	Number of seconds to wait for dialtone.
S7	Number of seconds to wait for carrier.
S8	Duration of pause (,) in seconds.
S9	Carrier Detect duration before connect, in 1/10 seconds.
S10	Loss of carrier duration before hanging up, in 1/10 seconds.
S11	Not Used
S12	Escape code guard time in 50th seconds.
S13	Bit mapped options
S14	Bit mapped options
S15	Flag register
S16	Modem Test Option
S17	Not Used.
S18	Test Timer, in seconds.
S19	Not Used.
S20	Not Used.
S21	Bit mapped options register.
S22	Bit mapped options register.
S23	Bit mapped options register.
S24	Not Used.
S25	Delay to DTR, in seconds.
S26	RTS to CTS delay, in 100th sec.
S27	Bit mapped options register.

DIAGNOSTIC COMMANDS

Code	Function
&T	Terminate test in progress.
&T1	Initiate local analog loopback.
&T3	Initiate digital loopback.
&T4	Grant request for remote digital loopback.
&T5	Deny request for remote digital loopback.
&T6	Initiate remote digital loopback.
&T7	Initiate remote digital loopback with self-test.
&T8	Initiate local analog loopback with self-test.

EXTENDED COMMANDS

Extended Command	Code	Function
DCD CONTROL	&C	0 = Carrier detect signal is always ON. 1 = Carrier detect signal is ON while the modem is connected and ready to transfer data.
DTR CONTROL	&D	0 = modem ignores DTR 1 = ON to OFF of DTR puts modem in command state 2 = ON to OFF DTR modem hangs up goes to command mode 3 = ON to OFF of DTR resets modem
GUARD TONE	&G	0 = no guard tone 1 = 550 Hz Guard Tone 2 = 1800 Hz Guard Tone (Not used in USA)
LEASED	&L	0 = standard phone line *PTSN 1 = leased line

*Public Switched Telephone Network

Sale dates 12/1/88 — 2/28/89 AD #010189-T1

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U.S. General Services Administration

New Year's News:

Comprehensive Coverage for 1989

by J. Scott Orr

It's here, this New Year nineteen hundred and eighty-nine.

The beginning of the year can be one of the busiest times in the news business and 1989 should be no exception, with a new administration moving into the White House and setting a new agenda for the nation.

The swearing in of a president can dominate the news for weeks, with the speculation as to who will make up the new cabinet and who will be appointed to other important positions that must be filled by the nation's new chief executive.

Also in January, the 101st Congress will be sworn in. How the new Congress will face the issues left by the 100th Congress and the new problems of the year will be a constant source of news for the first few months of 1989.

"Analyzing the effects of changes in the balance of power is *The Washington Post's* area of expertise," says Beth Loker, vice president of *The Washington Post*. *The Post* is the best source for general news reporting as well as political analysis of the federal government.

The new administration will have its first major test early in the year when it must publish its first federal budget. A major news event in itself, the budget has major impacts on taxpayers, businesses, politics and the national and world economies.

The budget has long been a factor in stock market fluctuations. Each covering a slightly different angle, Reuters Financial Report, McGraw-Hill News and OTC News Alert offer financial news reports that keep investors as well as consumers informed of the effects a new administration and its budget may have on their hard-earned dollars.

A new president can be the biggest news of any new year, but "spot" news can sometimes steal the show, such as the day in 1981 when President Reagan took over the reins of government from Jimmy Carter. On that same January day, the American hostages were released by the Iranians.

"That was certainly one of the biggest news days ever. You just can't predict those kinds of things," says Joe Persek, editor of Associated Press Special Services, which includes the online edition of the AP wire.

No one can predict spot news events, those triumphs and tragedies that pop up and grab headlines from time to time and captivate the public's attention. Remember, for example, Jan. 28, 1986, the day the space shuttle Challenger blew up moments after takeoff, killing its seven-member crew?

> *"The beginning of the year is a time people look for news they can use to get ready for another year."*
>
> ***Joe Persek***

The Associated Press is the best source for such fast-breaking news. AP news stories are updated continuously throughout the day and night, offering the latest developments long before more traditional news sources can publish or broadcast them.

Other news events are anticipated well in advance, and editors plan coverage weeks, even months, in advance.

Some of the first news many people look for in any new year is sports news, and CompuServe users don't have to wait until the newspaper arrives on their doorstep to find out the final college football rankings. And, as the National Football League moves toward its spectacular finale at the Super Bowl, AP sports will be there with constant updates.

Also in the news are the "year in review" pieces: What were the top news events of 1988? How did the economy do? What about the stock market? Interest rates? Housing starts?

"The beginning of the year is a time people look for news they can use to get ready for another year," Persek says. And there's no faster way to keep up with these events than through the "non-stop news" available online.

J. Scott Orr is the Washington correspondent for the Newark Star-Ledger *and Newhouse Newspapers. His CompuServe User ID number is 70007,1165.*

It's Stereo Information Month at Shoppers Advantage!

Shop Online

and see what you can hear!

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ON THE ELECTRONIC MALL®

Have you ever wondered what a woofer really does . . . why watts are so important . . . or what an equalizer equalizes?

This January and February are Stereo Information Months at Shoppers Advantage and the perfect time to find out! Come online and take advantage of our complete new glossary of stereo terms, designed to help you better decide which items from our huge listing of over 250,000 products will best suit your needs.

Shop at your convenience, with more detailed information than ever before, and save up to 50% OFF the manufacturers' suggested list prices. You'll get all this, and more:

- **User-friendly convenience.** We're open 24 hours a day, 7 days a week. Browse online, order online, and have your purchases delivered to your door. Simple menus and step-by-step instructions make it easy.
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- **Free catalogs.** We'll keep you informed about our latest "Best Buys" and exciting additions to our database of fine products!
- **Enroll today.** Sign on to CompuServe and enter **GO SAC** to have full membership privileges for 3 months for just $1. Then, unless you notify us, we will continue your membership annually, and bill you for the low annual fee of $30. And, of course, you can cancel and receive a full refund at any time during the first year.

Enter GO SAC or Call 1-800-843-7777

GO OLI for more information.

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*Conditions of our Low Price Guarantee and Double Warranty Policy can be read online.

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Special introductory offer for CompuServe subscribers: 3 months for $1

Go Mall

A GUIDE TO COMPUSERVE'S ELECTRONIC MALL® JANUARY/FEBRUARY 1989

Live, at The Mall: Conferences on racing cars and aching hearts

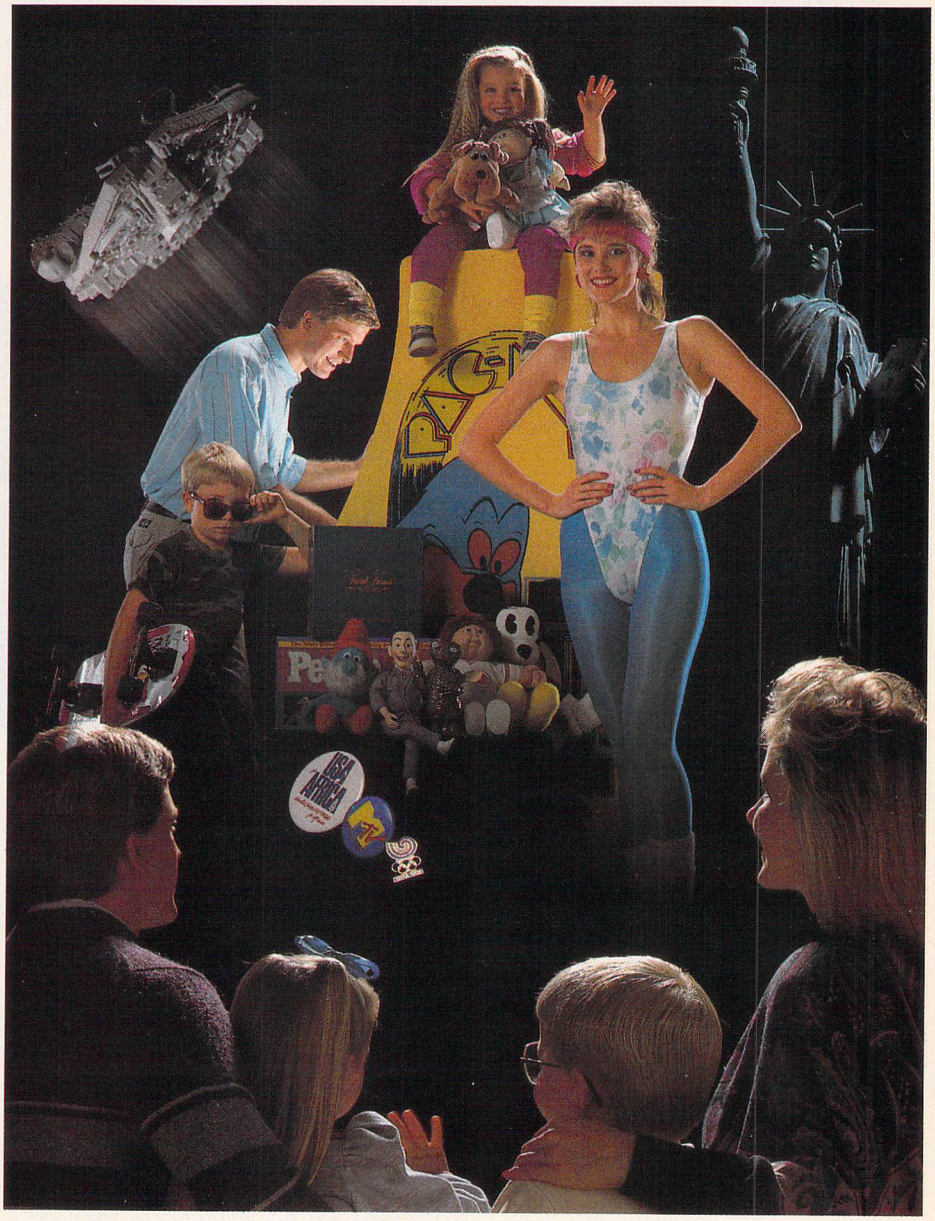
Cure romantic troubles with 50 ways to say 'I love you'

Give gifts with clout from Executive Depot

Track down elusive software with Menu's international database

Represent yourself and save on legal fees through The Law Store

Get the facts on Fax



THE ELECTRONIC MALL®

Bid Farewell to the '80s and win a $500 usage credit

DEAR SHOPPER

Dear Shopper,

Three hundred sixty-four days and counting. It may be hard to believe, but the '80s are rapidly coming to a close. Think back 10 years. I did and was amazed. More than anything else, it has been a decade marked by technology.

Ten years ago, did you own a VCR? A telephone answering machine? A Walkman®? A CD player? A microwave? A car phone? A fax machine? If you're like me, you probably didn't even own a personal computer! Consider this: a decade ago, CompuServe had less than 2,000 subscribers. Today, we're approaching the half-million mark.

This month, The Mall invites you to bid a fond "Farewell to the '80s." We've put together a quiz that tests your recall of the fads, trends and events of the last decade. To be eligible to win, simply match up the corresponding questions and answers. One lucky subscriber will win a $500 usage credit.

To kick off the New Year, we're also holding The Mall's second annual First Baby contest. The first future CompuServe subscriber born in the New Year will win a bountiful basket of prizes. For Valentine's Day, we've put together a gift-giving guide you can order online. Why, this year, even Cupid will make a live appearance on The Mall to counsel you on affairs of the heart.

Eight new merchants, including The Law Store, Ft. Worth Computer and Indian River Citrus, have opened their doors. And many of your old favorites have added new products and services. Plus there's free connect-time, free catalogs, contests, games and much more, all at your fingertips.

Technology. It's made all of our lives easier. A decade ago, who would have ever thought that you could shop for a new car, send roses to your sweetheart, order theatre tickets, or book a holiday in the Florida sun—all through your computer?

Electronically yours,

Cindy Morgan

ELECTRONIC LETTERBOX

Soothing shelter of sound.

Dear Windham Hill,

I've enjoyed listening to the Windham Hill artists since their beginnings. Others I've told about WH have been captivated by the technical aspects of the recordings as well as the artists' skills.

But beyond all this is the music—music that seems to transcend day-to-day hassles and transport the listener into a shelter of wonderful sound. Thanks!

Bob Y.
Annapolis, Md.

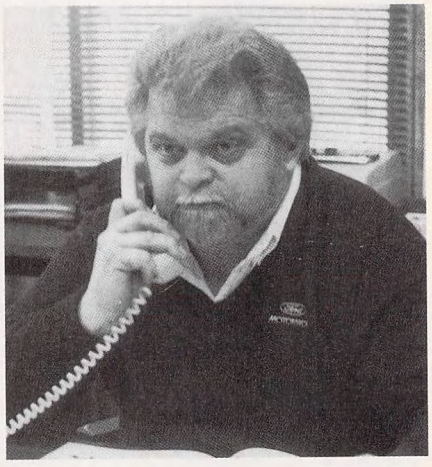
GOINGS-ON: MALLWIDE

Live at The Mall: Online conferences for racing fans and aching hearts.

Automotive advice from a Ford performance expert.

When you need fast, up-to-date information about Ford performance equipment, the person to contact is John Vermeersch, Ford Motorsport's performance advisor.

Meet John, live, at The Mall on Saturday, Jan. 14, 4-6 p.m. EST. He'll be online to answer questions. Ask him about Ford performance and parts, race vechicle modifications and Ford's new 1989 line.



John Vermeersch, Ford Motor sport's automotive expert

If anyone can help you, it's likely John can. He's been involved with Ford Motor Co. since 1964, racing and repairing Fords, and working as a technical advisor in developing new Fords. As director of technical services for Ford Motor Co.'s Special Vehicle Operations, John is very qualified to answer your questions.

Mark your calendar now for this exciting Electronic Mall event. GO FMC for complete details.

Counseling by keyboard? Consult Cupid online.

Cupid, too, is coming to The Mall. On Saturday, Jan. 28, and again on Saturday, Feb. 4, Cupid will be live at The Mall 1-3 p.m. EST.

Don't know what to get your husband or wife for Valentine's Day this year? Want to woo someone new? Having troubles with affairs of the heart? Consult Cupid. Mark your calendar now and join in on the online fun.

HOW TO ORDER

Shopping The Mall.

Ordering from The Electronic Mall is easy. Each time you enter a Mall store, a personal order file, much like an electronic shopping cart, is opened for you. Browse a store's database, and when you see a product you would like to buy, type the letter "O" and the order will be placed in your file, similar to selecting an item from a store's shelf and placing it in your cart.

You can order directly from the product description page — there is no need to return to a store's top menu. When you type "O," the system does not complete your order; it only registers your desire to make a purchase.

Checking out.

To complete your order, you must "check out." You can do this by typing CHECKOUT, the GO command of the next store you wish to visit or any command that takes you elsewhere on CompuServe. This tells the system you are ready to complete the order and presents two options.

1. Cancel your order by typing EXIT.
2. Complete your order by responding to a series of prompts for additional information.

When you have supplied the necessary information, you will receive an order summary. You now have the chance to change part or all of your order.

Once you've made any changes, you again will have the chance to review your order. When you confirm the order as correct, you will receive an order confirmation number. *At this point, your order is complete.*

Questions? Contact the merchant directly by using the customer service information provided within each store.

GoMall

***Go Mall*, January/February 1989**
Volume 3 Number 1

Go Mall is published bimonthly by The Electronic Mall®, a service of the Advanced Media Group, CompuServe Incorporated. For more information, call 614/457-8600, or send an EasyPlex to 70007,1610. Editors: Cindy Morgan, Kirk Donnan and Kassie Rose.

Bid Farewell to the '80s and win a $500 usage credit.

Who shot J.R.? Which was the best-selling car of the 1980s? Who created Cabbage Patch Kids? Test your '80s IQ at The Electronic Mall in a new online contest, "A Farewell to the '80s."

Take a nostalgic trip through the last decade. You could win a $500 CompuServe usage credit!

Pssst. You can easily solve the contest online.
It's easy. Simply match the 30 answers listed here (and online) to their corresponding questions, all of which are hidden at The Mall.

Each of the 30 questions is hidden in a store. To search for a question, just open a merchant's electronic doors (you'll find a complete list of stores in the directory at the back of *Go Mall* and also online under "Shop The Mall").

For example, to check for a question at AutoVision, you would first type GO AV at any prompt. Once inside, type CLUE. If there's a question hidden in that store, it will automatically appear on your screen. Match that question with its respective answer on your master list. If there's no question within that store, "Sorry, no question here" will appear, and you can continue your search.

Collect all 30 questions and match them with their corresponding answers. To be eligible to win, you must then fill out the official electronic entry form. Only one entry will be accepted per User ID number. Winners will be selected at random from all correct entries.

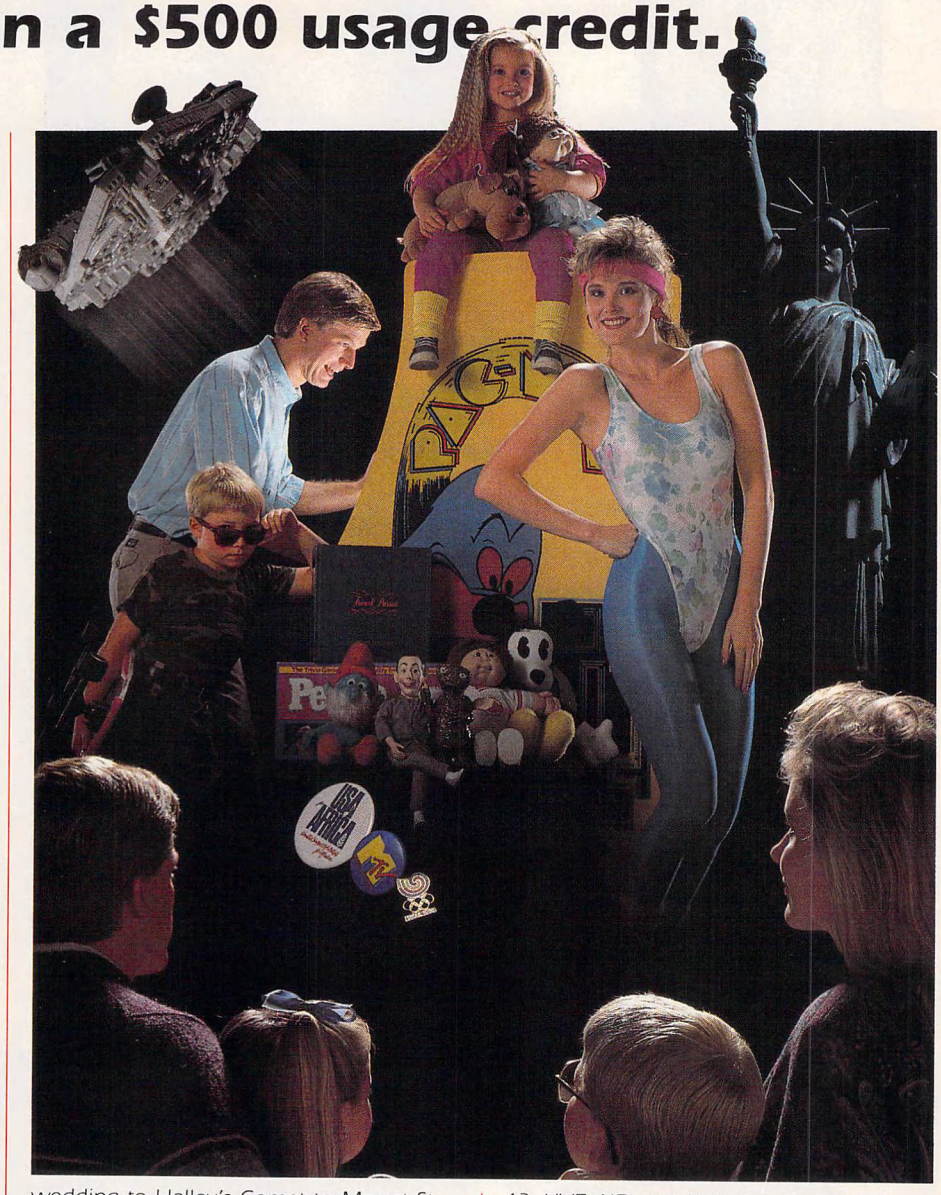
For complete rules and regulations, GO MALL and select "A Farewell to the '80s" from the top Mall menu. Have fun, and gear up for the '90s. Who knows what they'll hold?

The Prizes

Grand prize (1)
A $500 usage credit! Ample connect time to see you well into the last year of the 1980s. Discover all that CompuServe has to offer—from news to games to shopping.

First prize (3)
Compliments of Simon David ... it's a Couch Potato Kit. Each kit is a potato sack stuffed with a *TV Guide*, cookies, candy bars, potato chips, peanuts, nacho chips with hot sauce, popcorn, bean dip, a six-pack of beer (Coca Cola outside of Texas or on request), and a humorous *How to Kazoo* instruction book, complete with kazoo.

Second prize (50)
Compliments of Ballantine Books ... *What To Save From The '80s*. From the royal wedding to Halley's Comet to Mount St. Helens to Michael Jackson. Which memorabilia should you save? Which should you throw out? An entertaining guide for collectors—and everyone—that could make you rich in the 1990s.



A Farewell to the '80s.

1. Lake Placid, Moscow, Sarajevo, Los Angeles, Calgary, Seoul
2. Xavier Roberts' Cabbage Patch Kids
3. The Ford Escort
4. 145%
5. 965,000
6. Andrew Lloyd Webber's "Cats"
7. Halley's Coment
8. 40%
9. Mother's Day
10. 1984
11. Vanessa Williams
12. Lady Di and Prince Charles on July 29, 1981
13. LIVE AID and "We Are the World"
14. Michael Jackson and "Thriller"
15. The Brooklyn Bridge and the Statue of Liberty
16. Feb. 25, 1985
17. The 1981 Baseball Strike
18. 12 tons
19. Jay McInerny, Tom Clancy and Scott Turow
20. Rubik's Cube, Trivial Pursuit, Pictionary
21. Steiff's Original Teddy Bear and Teddy Ruxpin
22. The Eiffel Tower
23. Walter Mondale, Geraldine Ferraro and Lloyd Bentsen
24. Kristen Shepard
25. NeXT
26. "The River," "Nebraska," "Born in the USA" and "Tunnel of Love"
27. "Kramer vs. Kramer"
28. Mount St. Helens, Gloria and Gilbert
29. The Washington Redskins
30. Nearly 500,000

BEST BUYS

Perfect words for less.
Save 10 percent on all *WordPerfect* products at Computer Express, from Feb. 1 through Feb. 19. GO CE

Portable personal computer power.
The Tandy 1400 LT Portable features 720K, 80 character by 25 line backlit resolution, MS-DOS 3.2, two 3.5-inch drives, 7.16 MHz, and weighs only 13.5 pounds.
From Marymac Industries. GO MM

List price: $1,799 **$1,138.95**

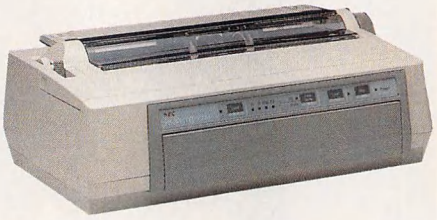
ScanMan from Logitech.
Affordable scanning power at your fingertips. Introducing ScanMan, the hand-held scanner, for those who need to combine graphics with documentation but don't need an elaborate scanner. Requires 384K, graphics card and DOS 2.1.
From Computer Express. GO CE

List price: $299 **$224.25**

Curtis surge and noise suppresors.
Protect your computer and data from electrical disturbances.
From The Stationery Center. GO SC
3-outlet wall-mount unit (shown)

List price: $84.95 **$55.95**

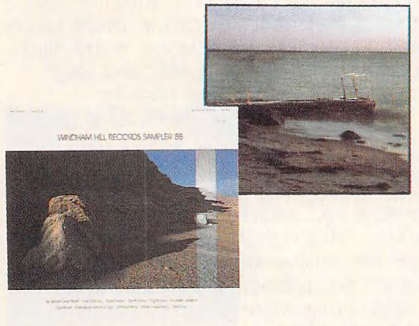
6-outlet unit with 6-ft. cord
list: $94.95 **sale:** $62.95



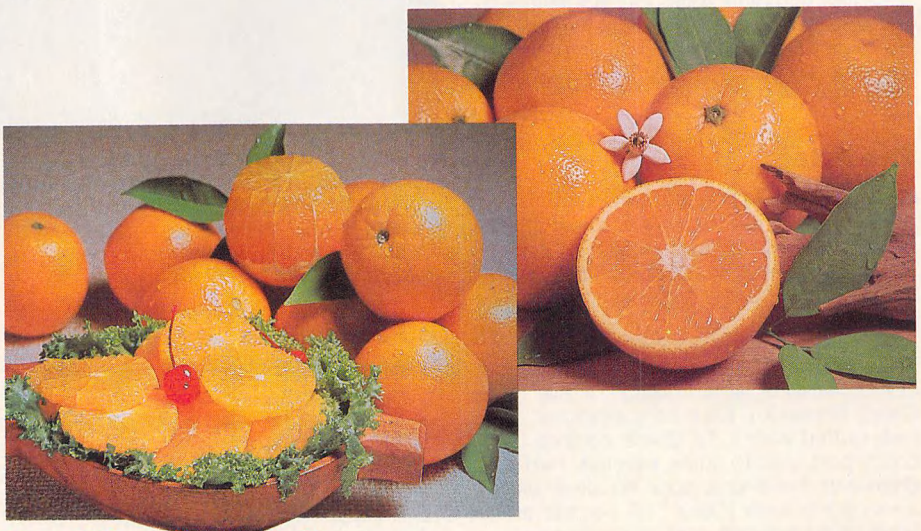
NEC Pinwriter P2200.
From The Stationery Center. GO SC

List price: $569 **$419**

Big savings on Florida sunshine.
Now through May 31, it actually pays to stay at The Days Inn McCoy in Orlando. Pay only $29 a night for single or double occupancy. Extra persons pay only $5 each. Conveniently located near Disneyworld and Epcot, this Inn is your perfect excuse to head South for sights and sun. From Bargain Holidays of Florida. GO BH



Save on a six-pack of CDs.
Windham Hill has a mid-winter deal for you. Select any six CDs from its online catalog for only $75! Choose from new and old releases. No matter which Windham Hill artists you select, you're in for savings. From Windham Hill. GO WH



Save 10% on Florida fruit.
Some of Florida's best fruit is available *after* the holidays. Try Florida Fruit Shippers' delicious honeybell tangelos, temple oranges and honey tangerines, available in January, February and March only.
Or select giant oranges, seedless ruby red and white marsh grapefruits. Or carambola, the exotic tropical star fruit. Sample Florida's finest in January, and Florida Fruit Shippers will shave 10 percent from your bill. From Florida Fruit Shippers. GO FFS

Fax facts at your fingertips.

If you're in the market for a fax machine, the place to start and end your search is The Electronic Mall. Study various models and makes. Compare features and prices to decide which fax is right for you, then place your order online.

Here's a list of the merchants offering fax machines and a look at some of the models they recommend:

Competitive Appliances & Electronics. Three models of Sharp facsimiles, starting as low as $769. Plus, Sharp fax accessories, including thermal paper. GO CEA

R+R Direct. The Complete FAX 9600 baud. Runs in background to receive or send files while you work at the keyboard. Also, the Brother fax 195, and a selection of JT fax boards.

Plus facsimile paper for DEX, Panafax, Canon, Murata, AT&T, Pitney Bowes, Rapicom, Xerox, Fujitsu, NEC, OMNIFAX, Harris/3M and other machines. GO RD

LifeSpan: A full line of Toshiba fax machines. GO LS

The Stationery Center. The Murata M1200 fax, phone and copier combination. Everything you need for today's smaller office, requiring less desk space than a typewriter. Just plug the M1200 into an ordinary telephone jack and wall outlet, and you're in business. Deliver documents instantly, virtually anywhere in the world. GO SC

Computer Express recommends the Complete FAX (CFAX) board, which transforms your MS-DOS microcomputer into a Group III facsimile machine. Send and receive fax messages all over the world. Includes features found only in top-of-the-line fax machines. List price: $499. Computer Express price: $349.30.

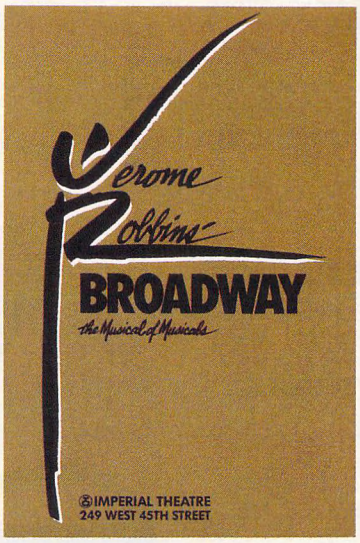
Also offered, three models of Sharp facsimile machines, starting as low as $1,399. GO CE

Marymac Industries. A fax featuring super-fine, standard and half-tone resolution modes. Doubles as a copier. Built-in 24-hour timer, 70-station auto-dialer. Telephone headset. Modem speeds to 9600 baud with auto fallback. GO MM

Theatre tickets online, from Tele-Charge.

Heading to the Big Apple? Now you can place online orders for tickets to Broadway's best. Visit Tele-Charge's Mall outlet, and select a long-running classic such as "A Chorus Line" or something that's just opening, such as "Jerome Robbins' Broadway."

Or plan ahead and get your seat to Broadway's most sizzling ticket, "Phantom of the Opera." Online you'll find complete ticket information, including cast, show times and seat pricing. Complete the easy online order form. Have your tickets mailed, or have them waiting for you at the box office.



Online ticketing from coast to coast. Tele-Charge also offers online ticketing services to all of its theatres in the United States. The Shubert Theatre in Boston, Shrine Auditorium and Shubert Theatre in Los Angeles, Forrest Theatre in Philadelphia, National Theatre in Washington, D.C., and Shubert and Blackstone Theatres in Chicago.

Win tickets to the show of your choice. In celebration of its new online service, Tele-Charge is offering two tickets to the show of your choice in the city of your choice (subject to availability) during January and February.

Just place an order online and you'll be eligible for two monthly drawings, one in January and one in February. For details and to order tickets online, GO TC.

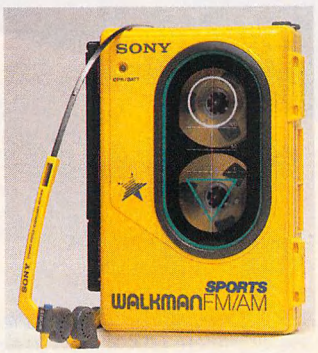
Technics stereo rack system

Pioneer auto radio cassette deck

Audio advice from expert ears at Shoppers Advantage®.

January is Audio Month at Shoppers Advantage. Stop by for tips from the experts on buying audio equipment—from turntables and speakers to CD players and car stereos. Learn what to look for, what to avoid, how long warranties and guarantees should be valid, and what sales pitches to beware of.

Whistler radar detector

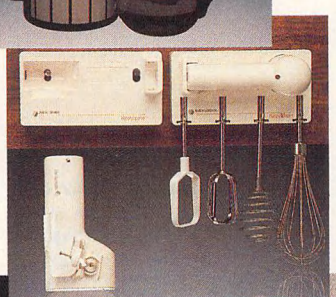


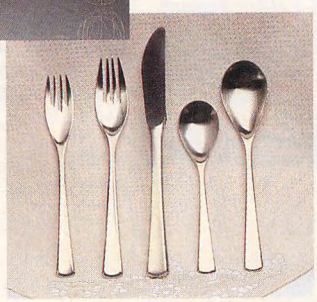
Sony Walkman®

New Best Buys for the New Year. Also at Shoppers Advantage this January: a new selection of Best Buys! More than 200 well-priced items, including cellular phones, laptop computers, furs, china, crystal, a brass bed, a country rug and a grandfather clock.

Anyone is free to browse, but the discount prices displayed are for members only. It's a new year. If you've resolved to save money, now's the time to join Shoppers Advantage. For membership details, GO SAC.

Twice the taste: Simon David doubles its Mall store.





Simon David, a leading Dallas-based gourmet shop, has recently doubled the size of its Electronic Mall store.

Three new departments—The Coffee Counter, The Flower Cart and S.D. Kitchens—have been added. Come in and browse.

S.D. Kitchens boasts a bountiful assortment of entertaining and cooking items, all at 20 percent to 30 percent less than you'd pay elsewhere: cookware, electrics, glassware, cutlery and cookbooks. The Coffee Counter features gourmet coffees, teas and accessories. And The Flower Cart will wire flowers virtually anywhere in the world for you.

Now in its 100th year, Simon David prides itself on offering the best in specialty gourmet foods and gift items. Stroll through and select one of the unusual gift baskets you'll find online. And don't forget to request your free copy of Simon David's full-color catalog. GO SIM

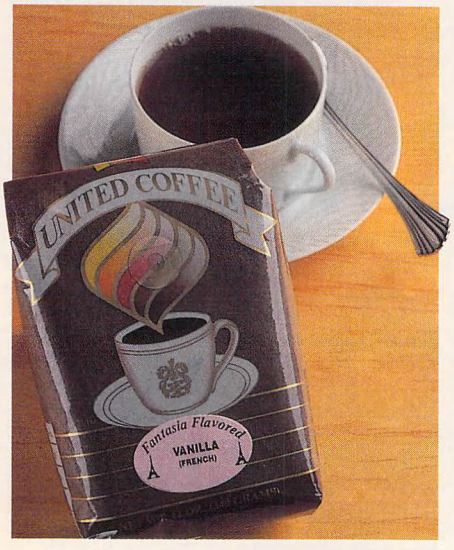
Executive Depot carries coffee, cutlery and gifts with clout.

From gourmet coffees to designer timepieces, cutlery to coffee makers, Executive Depot has them all. Browse its online shop for a variety of gift items perfect for the executive, the cook or most anyone.

For the upwardly mobile, give the Executive Auto Mug. Each mug is made of fine porcelain, a lustrous black glaze and a 22-karat gold logo. Select the Audi, the BMW, the Cadillac, the Jaguar or the Mercedes.

And to fill that mug? There are gourmet coffees, in dozens of blends, including Celebes Kalossi, Colombian Supreme and Hawaiian Kona. Dark roasts, decaffeinated blends and flavored coffees, too. Plus, coffee makers, presses and accessories.

For those with culinary talents, there's a selection of top-of-the-line cutlery and kitchen accessories, including Solingen cutlery from West Germany; knives for paring, carving, fileting and boning; and gift-boxed carving sets. Professional Oriental knives for preparing sushi and sashimi are also available. Other specialty items for the cook include a garlic press, oyster/clam knife, cheese grater, fish scaler and pizza cutter.



Finally, Executive Depot carries an exquisite selection of designer-style time pieces, including Rolex, Movada and Gucci simulations, each for less than $40. Each watch features accurate quartz movement and comes with a one-year guarantee.

For gifts with clout, GO ED.

Executive Depot's grand-opening, free-connect weekends: Jan. 14 and 15, Feb. 11 and 12.

Track down elusive software with Menu's international database.

Information on more than 75,000 software packages is at your cursor's command. For any system—from Apple to Zilog—on any subject—from astronomy to zoology—Menu has it.

Menu's international software database is the most comprehensive in the world. Find productivity packages on accounting, marketing, taxes and more. Software for professionals on such topics as aerospace, agriculture and aviation. Systems programs on artificial intelligence and utilities. Whatever your area of interest or experience, Menu has a program for you.

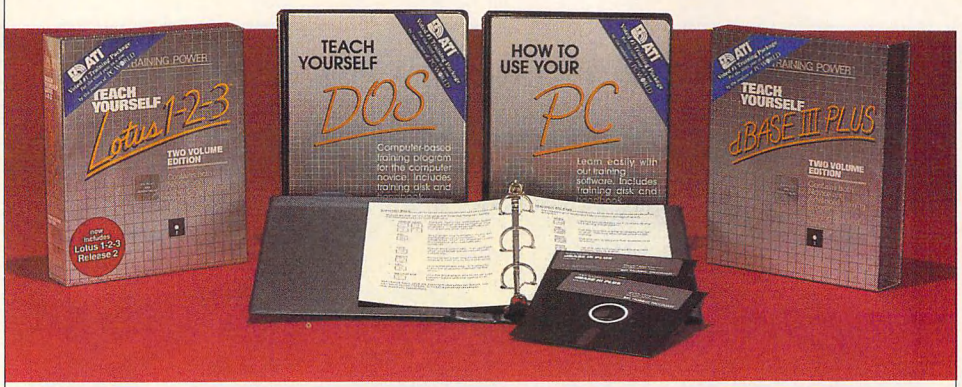
Computer-specific software listings.

Online, you can order *Menu Guides*, books listing software programs by computer type; and *Soft Reports*, printed copies of information from Menu's database transmitted via EasyPlex, describing software that meets your specifications. For optimum ease, Menu's database is keyword searchable.

Request a catalog. Browse it at your leisure, then place your order online. Watch Menu's monthly specials for announcements of new programs and periodic sales. Can't find what you're looking for? Menu welcomes special requests. Inquire through the Customer Service Department listing for a prompt, personal reply.

If anyone can locate the software you need, Menu can. GO MNU

Menu's grand-opening, free-connect weekend: Jan. 14 and 15.



Master software through skill simulations from American Training Institute.

You've bought *Lotus 1-2-3, Multimate* or *WordStar*, but the enclosed manuals may as well be written in Greek. Now what? Take a trip to American Training Institute.

Since its founding in 1979, American Training has sold more than 750,000 computer-based training courses. These diskette programs teach you how to use the most popular personal computer applications in a matter of hours, by simulating the actual skills needed to run each package. For a few extra dollars, now you can capitalize on the investment you've made.

American Training Institute's online catalog features teaching programs for most popular personal computer applications, including *dbase III*, *Display Write 3* and *4*, *Easywriter*, *Framework*, *Lotus 1-2-3*, *Microsoft*, *Multimate*, *Symphony*, *Oracle for 1-2-3* and many more.

Whether for personal use or for training staff members, these programs can save you hours of frustration and countless headaches.

To learn the ABCs of your personal computer, GO ATI. *American Training Institute's grand-opening, free-connect weekends: Jan. 7 and 8, Feb. 4 and 5.*

Fresh-from-the-grove fruit from Indian River Citrus.

Citrus from the Indian River region of Florida is known around the world as the sweetest, most succulent that money can buy.

Now The Electronic Mall puts the region's grove-fresh fruit within easy reach. It's hand-picked, then shipped the same day.

Wander through Indian River's online groves. Featured in January are minneolas (a grapefruit-tangerine hybrid), navel oranges and seedless grapefruits. All fruit is available in quarter, half or full bushels.

Or select Indian River's deluxe sampler: seven pounds of fruit plus two jars of tropical fruit marmalade. Another gift option is Indian River's Citrus Season Plan. Your family and friends receive a half or full bushel of Indian River's finest for any three months you choose, from December through May.

You can also create your own custom gift-pack right online. Fresh orange marmalade, pure orange blossom honey, chocolate-coated coconut patties, fresh pecans, or a set of four grapefruit spoons can be included with any order.

All orders include a complimentary citrus recipe booklet, too.

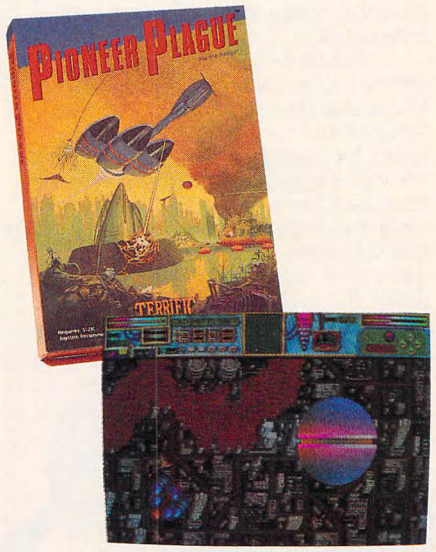
For a taste of Florida's finest, GO IR.

Indian River Citrus's grand-opening, free-connect weekend: Jan. 7 and 8.

Antic Software pays homage to Atari and Amiga owners.

Good news for Atari and Amiga owners: Antic Software is open for business at The Mall. The leading producer of desktop graphics for the Atari ST, Antic has just released several new products for the Amiga, too.

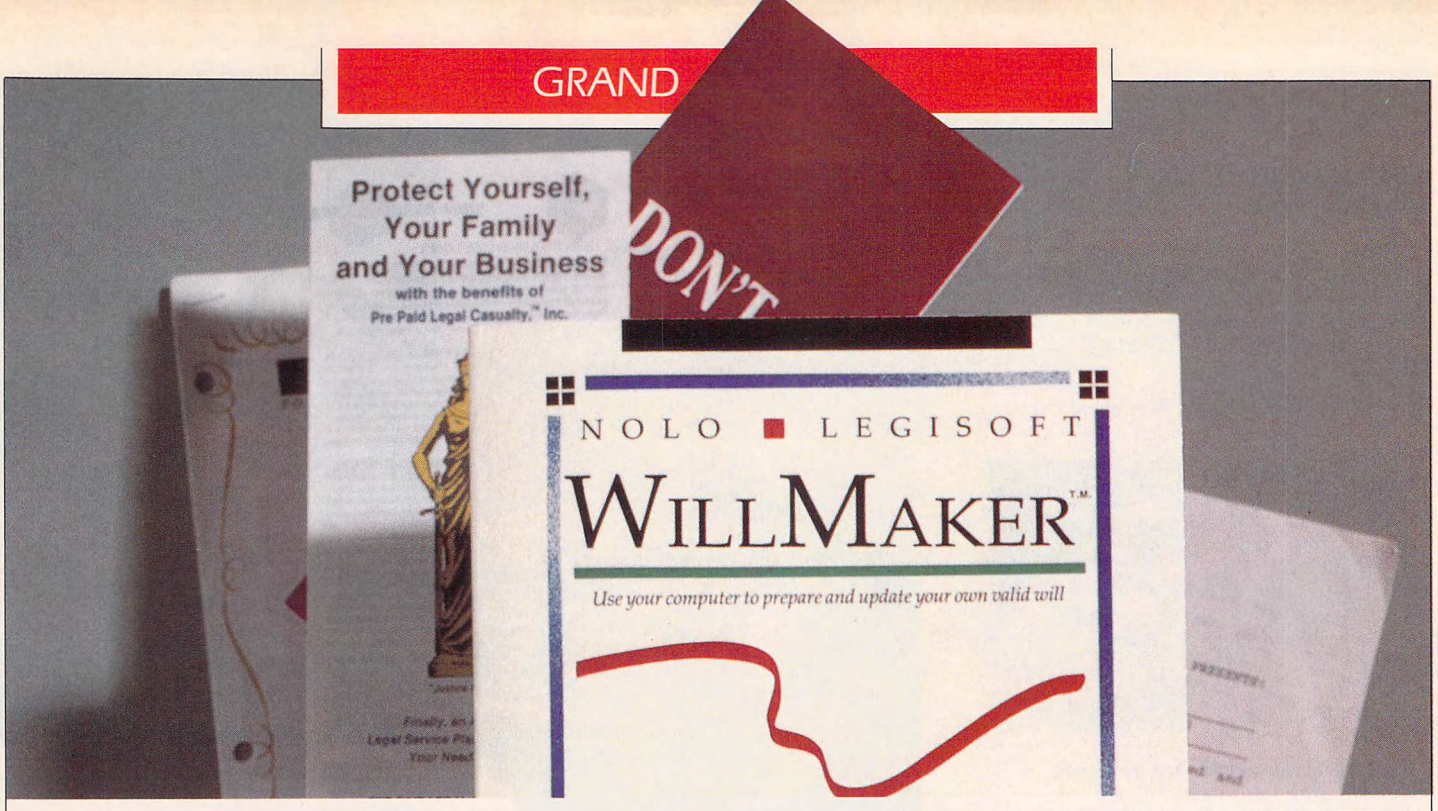
Look through its online catalog for a wide range of software for both machines. You'll find the comprehensive Atari ST CYBER Graphics line of products, including the just-released *Cyber Sculpt*, an extension of CAD-3D that adds features such as push, twist and cross-sectional modeling. *Cyber Sculpt* also opens the door to upward compatibility with professional CAD systems.



New for the Amiga is *Pioneer Plague*, the first game designed to take advantage of the Amiga's HAM graphics mode. Other new game releases in the Terrific Software line include *Starquake* and *All Aboard!*

Step inside Antic's Mall store. Consult customer service with any technical questions. Order free copies of Antic's catalog and of its newsletter, *Cyber News*. To discover whole new worlds, GO AN.

Antic Software's grand-opening, free-connect weekend: Jan. 21 and 22.


GRAND
Protect Yourself, Your Family and Your Business
with the benefits of
Pre Paid Legal Casualty,™ Inc.
DON'T
NOLO ■ LEGISOFT
WILLMAKER™
Use your computer to prepare and update your own valid will

Represent yourself and save on legal fees through The Law Store.

With legal fees continuing to escalate, even the cost of preparing a simple will can put a dent in your budget. But did you know that, in many instances, you don't need a lawyer? You can do it yourself.

Owned and operated by lawyers, The Law Store wants you to be an informed legal consumer, saving you the cost of needless legal services. Online, you'll find simple legal forms, software, books...even personal legal insurance.

Nearly 100 different legal forms—many as low as $1 and none higher than $9.95—can all be ordered online. Need it fast? The Law Store offers fax service, too. From wills to power of attorney, from incorporation forms for small businesses to real-estate forms for buying and selling property.

Prepare your own will.

If you're planning to write a will, or if you've thought about revising an existing one, consider *WillMaker*, software from Nolo Press that takes you step-by-step through the process of preparing a will that will hold up in any court.

Finally, because there are times when you *will* need a lawyer, The Law Store offers personal law insurance. A new trend in the legal profession, this insurance can save you thousands in legal fees.

For one of the most judicious decisions you've ever made, GO LA.

The Law Store's grand-opening, free-connect weekends: Jan.7 and 8; Feb. 4 and 5.

Discover deep discounts on Tandy/Radio Shack products at Fort Worth Computers.

Enjoy substantial savings on a wide variety of products at Fort Worth Computers, an authorized Tandy/Radio Shack dealer. Browse online for the most recent product information and pricing. Then, place your order conveniently and easily through Fort Worth's toll-free phone line, or by Fax (both numbers can be found online).

Serious savings.

Prepay your order by check or wire and Fort Worth will deduct another 3 percent from its already low prices. (Remember, there are no sales taxes outside of Texas.)

Plus, Ft. Worth Computer pays all freight charges on any order shipped in the contiguous 48 states. The price you see is the price you pay—there are *never* any added charges.

Products available online include monitors, computers, printers, accessories, cellular phones and fax machines. Three Tandy cellular phones—two priced under $1,000—are featured, as are fax machines from Sharp, Brother, Canon and Toshiba. Accessories range from a Tandy memory expansion board to a 20MB hard card.

All products come with complete limited warranties good at any Radio Shack computer center in the United States.

For significant savings on products from microcomputers to cellular phones, GO FWC.

Fort Worth Computers' grand-opening, free-connect weekend: Jan. 14 and 15.

Fifty ways to say 'I love you.'

Shopping for your valentine has never been easier. Browse The Mall's guide to your heart's content. Organized by category, the guide includes dozens of ways to send your Valentine greetings.

Hearts and flowers.

▲The traditional lover's gift.
One dozen long-stemmed red roses. From Walter Knoll Florist. GO WK

A rhodonlite heart necklace.
From Ivory Cache. GO IV

◀The elegant red ribbon and rose ballotin.
A symbol of lasting romance and beauty graces a Godiva gold ballotin. Inside, luscious milk and dark chocolates. Available in half pound, 1 pound, and 2 pound selections. From Godiva Chocolates. GO GC

▶The love-struck Garfield bouquet.
Your favorite star-eyed cynic, delivered against a backdrop of fresh carnations and chrysanthemums. From Walter Knoll Florist. GO WK

Roses and carnations via Teleflora.
From Simon David. GO SIM

Seductive suggestions.

▼Breakfast-in-bed basket.
From Pepperidge Farm. GO PF

Maine clambake for two.
Open the insulated shipping box and you'll find everything you need for a romantic seafood dinner for two. Fresh from the pier, each clambake includes lobsters, clams, mussels, codfish, onion, potatoes and corn (in season)—all on a bed of seaweed. Plus a pot to cook it in! From Rent Mother Nature. GO RM

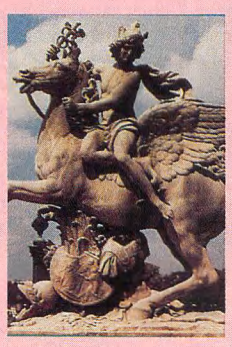
Truffles in heaven.
By Joseph Schmidt. From Simon David. GO SIM

▶An art nouveau perfume bottle.
From The Metropolitan Museum of Art. GO MMA

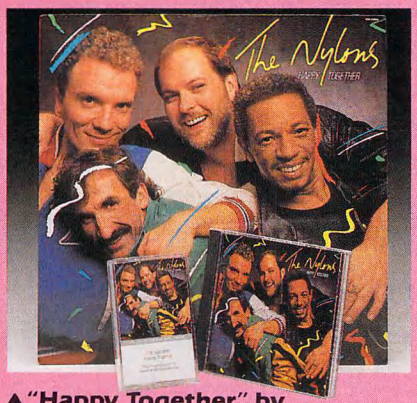
▲"From your secret love."
Decorative tin filled with 12 foil-wrapped chocolate hearts. From Pepperidge Farm. GO PF

Seven scents.
A sampling of seven of the finest scents. From Bloomingdale's. GO BL

Air France's tale of two cities.
The perfect combination of classic and contemporary: Air France's European Treasures, featuring the best of Paris and London. Included in this tour package are round-trip airfare, one-week deluxe hotel accommodations, daily continental breakfast, discounts for shopping and evening entertainment, and more. From Air France. GO AF



Cupid's choice.



▲"Happy Together" by The Nylons.
CD, LP or cassette. From Windham Hill. GO WH

Cultured pearl necklaces and bracelets.
From Annemarie G. Schaffer. GO GR

Champagne hamper.
Packed with delicious oranges, grapefruits and sweet treats. From Florida Fruit Shippers. GO FFS

A week in the Caribbean.
Or in Hawaii. Or maybe Mexico, at the luxury resort condominium of your choice. From Endless Vacation Travel. GO EV

Scintillating scents.
Select from Elizabeth Taylor's Passion, Obsession by Calvin Klein, Giorgio of Beverly Hills and more. From Harris' Scent-Sations. GO HR

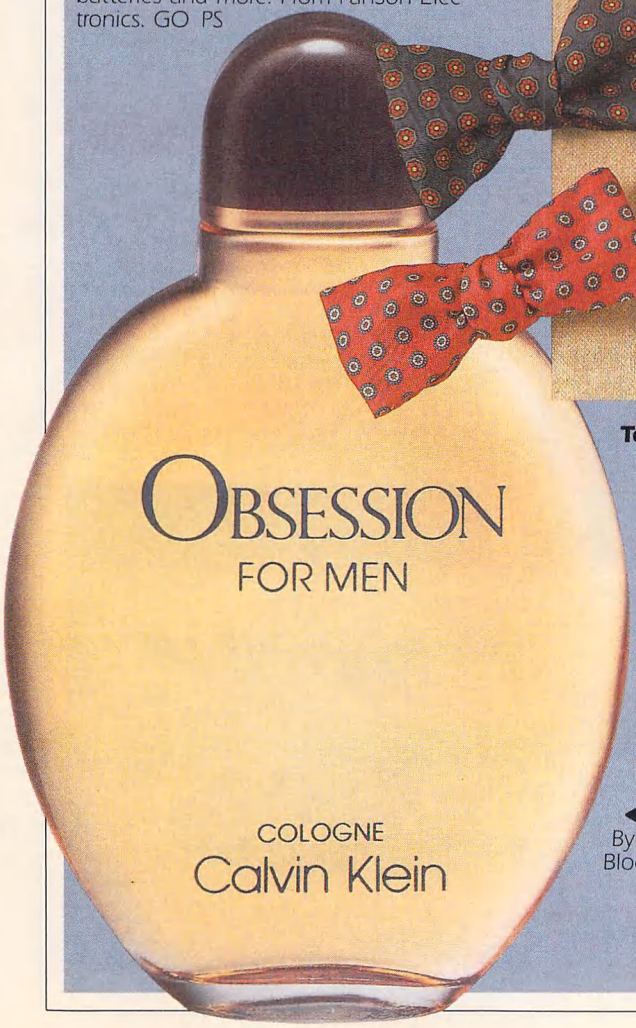
▲A Wax 'n' Wicker Valentine basket.
From The Stationery Center. GO SC

▲Hand-crafted Italian jewelry box.
From Sharon Luggage and Gifts. GO SL

The way to his heart.

A PanSon gift certificate.
Let him select from hundreds of tools, computer and electronic accessories, blank audio and video tapes, flashlights, batteries and more. From PanSon Electronics. GO PS

▼English silk bow ties.
For the true gentleman. From Brooks Brothers. GO BR

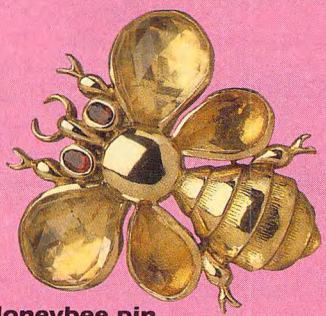


Texas steak-out.
Two 14-ounce ribeyes, two 12-ounce sirloin strips and two 8-ounce filets. Plus, a bag of mesquite chips and a 16-ounce jar of Simon David barbecue sauce. From Simon David. GO SIM

Deluxe rotisserie.
From Char-Broil Grill Outlet. GO CO

Serengeti drivers.
From Elite Eyewear. GO EE

◀Obsession for men.
By Calvin Klein, from Bloomingdale's. GO BL



▲Honeybee pin.
The bee's wings are faceted citrines, the eyes are rubies. A spectacular 14-karat gold pin. From The Metropolitan Museum of Art. GO MMA

The original Love Byte.
A high-tech gift for your honey. Five and one-quarter inch chocolate diskette. From Some Things Special. GO SP

Shoppers Advantage opens valentine's boutique.

Just in time, Shoppers Advantage has opened a special Valentine's Day boutique for both members and nonmembers. Traditional long-stem roses, chocolates and other offerings can be ordered online. GO SAC

WINDOWS ON THE MALL

ART, MUSIC & VIDEO

Portrait of an artist: Georgia O'Keeffe.
A splendid selection of VHS films, including "Georgia O'Keeffe," in which the artist talks candidly about her life and work. Also online is a box of 24 O'Keeffe notecards and an 1989 O' Keeffe wall calendar. From The Metropolitan Museum of Art. GO MMA

Medieval castles and knights in armor.
Build an authentic medieval castle with easily assembled, snap-together plastic stones, turrets, and tower tops. Then, introduce a set of silver or black knights. From The Metropolitan Museum of Art. GO MMA

Very affordable virtuosos.
More than 200 classic CD recordings: Bach, Beethoven, Mozart, Ravel, Tchaikovsky, Vivaldi and more. More than 35 selections priced at only $6.98, more than 75 at only $8.98, nearly 100 at a very affordable $11.98. From Discovery Artists. GO DA.

AUTO

Buick's car of the month: the Century.
Life in the next Century is more streamlined than ever. Buick's new Century has a freshly restyled, smooth look. And Century is engineered to be equally smooth on the road, thanks to Buick's exclusive DynaRide suspension.

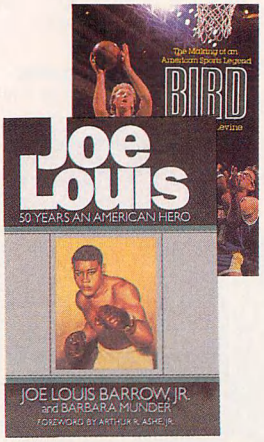
Visit Buick's Mall showroom for complete specifications and pricing, and to request your free copy of the Buick 1989 catalog. It is 94 pages, showcasing the complete Buick line of motorcars. From Buick Magazine. GO BU

Fix it with Ford.
Having trouble finding parts for your classic Ford? Interested in upgrading your transmission? Towing a trailer? Customizing your car?

Order the *Ford Motor Parts* catalog, featuring more than 2,000 parts that can be ordered online or directly from Ford. From Ford Motor Co. GO FMC

BOOKS/PERIODICALS

Legends in their own time.
Bird, the dazzling biography of the one and only Larry Bird, and *Joe Louis*, the revealing biography by the boxing great's son. From McGraw Hill Bookstore. GO MH



Sci-fi, fantasy and King.
The best of the new and backlist science fiction and fantasy titles from DAW. *Encylopedia of Things That Never Were; Isaac Asimov's Wonderful Worlds of Science Fiction; Chronicles of the Cheysuli, Books 3 and 4* and many more. Plus the best of Stephen King, including a three volume set that includes *The Stand, Cujo* and *Skeleton Crew*, and the new *Nightmares in the Sky: Gargoyles and Grotesques*. From Penguin Books. GO PB

Computer know-how.
Hundreds of texts for all types of computers. New titles include *Understanding dBase IV* by Alan Simpson, *PC Magazine and Dos Power Tools* by Paul Somerson and *Using WordPerfect* by Charles O. Stewart. From Walden Computer Books. GO WB

Taxtime tips.
New! Completely updated, the *1989 Arthur Young Tax Guide*. From Ballantine Books. GO BAL

BUSINESS & FINANCE

Taxtime help.
Programs for the professional and for personal use. Titles include *Howard Soft Tax Preparer; Howard Soft California Supplement; Howard Soft Tax Preparer: Partnership;* and Best Programs' *PC/Tax Cut, PC/Professional Finance Program* and *Personal Tax Filer.* From Investment Software. GO IS

Bilingual software.
Introducing *Foreign Language Translation Software* for the IBM and compatibles. Features fast, accurate draft translations; comprehensive core dictionaries; split-screen, dual language display; foreign language word processing and more. Languages available are Spanish, Russian, French, German, Italian and Portuguese. From Globalink. GO TII

CLUB & MEMBERSHIP

Build your CD library-fast.
Did you get a CD player this Christmas? Build your CD library quickly and economically by joining The CD Club. Select from rock, country, easy-listening, classical. Choose from old favorites or new releases. Look over the online catalog, then join today. GO CD

COMPUTING

Get a jump on Uncle Sam.
April 15 is around the corner. Get ahead of the game with Computer Express's taxtime software for Apple, Apple IIgs, Macintosh and IBM computers. Computer Express carries programs for the personal as well as the professional user.

Programs showcased include *Turbo Tax* and *Turbo Tax States* from Chipsoft, *HowardSoft Tax Preparer '89*, and *TaxView* from Softview. From Computer Express. GO CE

WINDOWS ON THE MALL

Computer insurance for travelers.
Introducing a low-cost policy that can be put into immediate effect with a phone call or an EasyPlex message. The 90-day overseas computer policy takes the risk out of transporting and using your personal computer while traveling abroad. From Safeware Insurance. GO SAF

Identify—and order—your printer's ribbon.
Direct Micro has increased its ribbon selection and made identifying your printer's ribbon a breeze. Some 180 printer models are listed in the store. Via easy-to-follow menus, bring your ribbon's description to your computer screen with just a few keystrokes. And remember, Direct Micro offers quantity discounts on its already low, everyday ribbon prices. From Direct Micro. GO DM

New software added almost daily.
Because Software Discounters knows you don't want to wait for the hot new titles when they arrive, they're now updating their database almost every day.

So when a new title comes in, SDA adds it online ASAP. New titles are flagged with the words "New Addition" in the menus. Keep an eye out. From Software Discounters of America. GO SDA

For schools, government agencies and sub-contractors: Tandy systems.
Marymac Industries welcomes the opportunity to bid on Radio Shack/Tandy products for school districts and state and local municipalities. In the past, Marymac has provided Tandy systems to schools, cities, prisons and government agencies nationwide. For more information and a custom quote, GO MM.

GIFTS & COLLECTIBLES

A sliver of time.
The world's thinnest clock radio, by Colibri. The size of a credit card, this attractive clock comes with an engraved case. From Sharon Luggage and Gifts. GO SL

It's nice to give Mother Nature.
For the impossible-to-please, it's Rent Mother Nature. Rent a maple tree. Hire a honey hive. Lease a lobster trap. Here's a gift guaranteed to delight. From Rent Mother Nature. GO RM

A potpourri primer.
An online tutorial on how to select potpourri, plus a bountiful selection of fragrant choices, including Aberdeen heather, Elizabethan rose, mountain spruce, French lavender, Nantucket briar and magnolia. From Crabtree & Evelyn. GO CR

Hawaii delivered to your door.
Gifts from Hawaii's paradise, including the Pineapple Pleasure Pack, Trya Papaya, chocolate macadamia nuts and the ultimate Hawaiian gift-pack. From Paradise Technology. GO PT

New soups for winter warmth.
A new assortment, featuring four of Pepperidge Farm's favorite soups: minestrone; green pea with ham and sherry; bacon, lettuce and tomato; and chicken with wild rice. To top it off, the assortment also includes a box of crispy seasoned croutons. From Pepperidge Farm. GO PF

A gathering of gadgets.
Dozens of nifty items designed to make life a little nicer. Featured products include DON'T EAT: The Electronic Diet Alarm, Snore Stopper and The Sensorbeam Keyfinder. From LifeSpan. GO LS

FOODS & FLOWERS

Coffee of the month club for armchair travelers.
Announcing Coffee Emporium's Coffee of the Month Club. Travel the world via your coffee cup. Each month you'll receive a different coffee from exotic places such as Celebes, Guatemala and Kenya. And on the 12th month, you'll receive, free with your monthly shipment, 1 pound of Jamaican Blue Mountain, the world's rarest coffee. No passport necessary. From Coffee Emporium. GO COF

Free miniature African violet with purchase.
Williams & Eeden Garden Center wants to brighten your winter. During January, they'll include a free miniature African violet with any purchase of $35 or more. From bonsais to bulbs, gardening tools to books, every purchase qualifies. Each miniature violet includes growing instructions. From Williams & Eeden Garden Center. GO WE

HEALTH & BEAUTY

Add a little spice to life.
A complete line of gourmet Shoffeitt seasonings from the California Wine Country, including low-sodium and salt-free blends. Also, tangy mustards and country catsup from The Napa Valley Mustard Co. From LifeSpan. GO LS.

The ABCs of nutrition.
Multiple vitamins, single vitamins (including stress B, vitamin C and vitamin E), minerals (incuding iron, calcium and potassium), and children's vitamins. From General Nutrition Company. GO GN

His and hers hairbrushes?
A collection of hairbrushes for the two of you. From Crabtree & Evelyn. GO CR

HOBBIES, TOYS & PETS

Luxurious lounging for canines.
The only orthopedic dog bed. Ideal for both puppies and adult dogs. Provides relief to pressure-sensitive areas, aids in circulation and helps assure proper weight distribution. Your pet will have the sweetest of dreams! From The New York Kennel Club. GO KC

Menagerie of stuffed animals.
Meet Raggy Racoon, Molly Leopard, Gora Gorilla, Lorli Fawn, Clifford Berryman Bear and Schnuffy Bear. From Hobby Center Toys. GO HC

THE MEN'S SHOP

High-performance sunglasses.
New! Perfect for the slopes or the beach, Revo® sunglasses are unique. Engineered to give you the best possible protection, they shield your eyes from the potentially harmful effects of infrared and ultraviolet light. Available in three stunning iridescent colors: ariel blue, solar orange and spectral violet. From Elite Eyewear. GO EE

WINDOWS ON THE MALL

Tip of the hat.
A gray felt Tribly, a welcome addition to any gentleman's wardrobe. From Brooks Brothers. GO BR

Something in the air.
Men's cologne and after shave, including Bijan, Perry Ellis, Aramis, Polo by Ralph Lauren and Tuscany. From Harris' Scent-Sations. GO HR

Comfortable coverings for the island-bound.
Perfect for a misty cruise or those cool Caribbean nights. All-cotton sweaters in a variety of styles. Or Golden Fleece long-sleeve knits, available in seven solid colors and embroidered with Brooks Brothers' symbol. From Brooks Brothers. GO BR

Outfit your feet for less.
Quality men's shoes from Allen Edmond, Bass, Cole Haan, Rockport, Sperry Top-sider, Keith Highlander and more. All at about 30% less than you'd expect to pay! From Apparel Concepts for Men. GO APC

THE WOMEN'S SHOP

Brooks Brothers allows a woman's prerogative.
A Brooks Brothers gift certificate lets her select from a variety of classic styles and accessories. From Brooks Brothers. GO BR

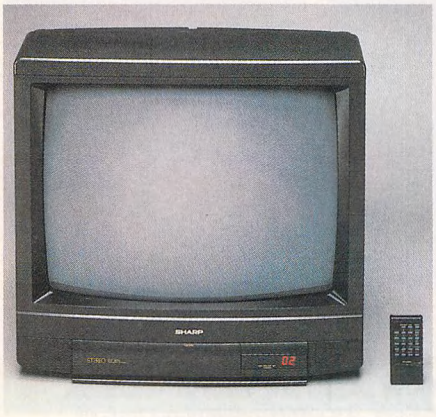
Beautiful baubles.
Semi-precious stone necklaces. Choose from rose quartz, amethyst, lapis, jade, garnet, turquoise and more. From Annemarie G. Schaffer. GO GR

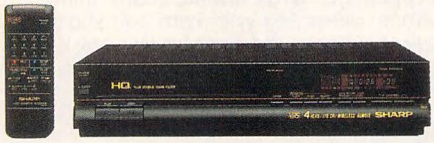
Bloomie's cosmetics counter.
Restorative night creams, herbal body wraps, masques, after-sun products, make-up and perfumes. From Bloomingdale's. GO BL

MERCHANDISE/ELECTRONICS

Tooling around with Panson.
New! PanSon's tool chest. Select from the top of the line, including Thoren, Xcellite, Weller and Ungar. Screwdriver sets, soldering irons, pliers, hammers and drivers. From PanSon Electronics. GO PS

A winter tan.
Safe, professional tanning equipment for at-home use. From Bloomingdale's. GO BL





A/V toys for big boys.
CD players as low as $135. VCRs and camcorders from Sharp, Sony and Toshiba. All at low prices. From Competitive Appliances & Electronics. GO CEA

Watch the big game *and* the big love scene.
A unique video tuner that allows any television (connected to a VCR or other second tuner source) to receive two stations simultaneously, displaying the second channel's program in a "picture within a picture." Perfect for sports addicts. From Hammacher Schlemmer. GO HS

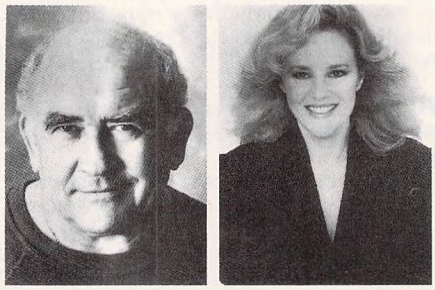
Heath's latest radio product.
Announcing the SB-1400 All-Mode Tranceiver, the latest in Heath's full line of amateur radio products. Provides all-band, all-mode coverage, with 100 watts of transmit power on all nine HF amateur bands. From Heath Co. GO HTH

TRAVEL & VACATIONS

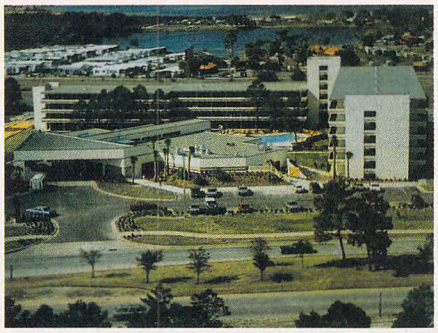
Fly the Concorde for the price of first class.
For the price of a round-trip, first-class ticket to Europe, you can fly the Concorde when you travel anytime January through March 1989.

Simply book your flight at least 48 hours prior to departure. The offer is good only for round-trip travel on Air France originating in the United States and charged on an American Express Card. You'll cross the Atlantic quickly and in the ultimate luxury. You'll also receive complimentary limousine service to and from the center of Paris! From Air France. GO AF

Broadway's hot new tickets.
Two new shows are opening soon on Broadway. "Jerome Robbins' Broadway" is a blockbuster retrospective musical featuring show-stoppers from many of Robbins' smash hits, including "West Side Story," "Fiddler on the Roof" and "The King and I." Performances begin Jan. 16.



Also, Edward Asner and Madeline Kahn have joined forces in one of America's best-loved comic masterpieces, "Born Yesterday." Tickets to both shows can be ordered online. From Tele-Charge. GO TC



Relax at the most requested resort in Orlando.
Book rooms at the most requested resort in the Orlando area, the Quality Inn Plaza. The Plaza offers modern, comfortable accommodations with many amenities, including a large pool, a poolside bar and video arcade. Don't forget to order *Bargain Attractions*. This booklet of exchange vouchers can save you money and long waits in line at many of the area's attractions. From Bargain Holidays of Florida. GO BH

Who's the first CompuServe baby of 1989?

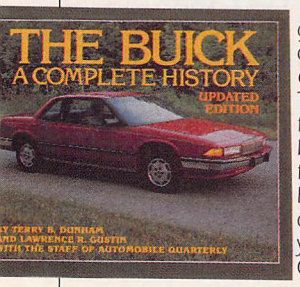
We're delighted to announce our second annual First Baby contest. (Last year, the contest was won by twins!) To welcome the first baby born to a CompuServe member in 1989, we've put together a bountiful basket of prizes, donated by Mall merchants.

For a complete list of prizes, rules and regulations, GO GMO.

You just can't lose with Buick heritage.

Take a stab at Buick's all-new, monthly Heritage Quiz.

Every month, a new quiz testing your knowledge of Buick through the years appears online. Everyone who takes the quiz wins a prize. And one lucky subscriber, selected at random from all correct entries, wins a special grand prize.



January's grand prize is a copy of *The Buick: A Complete History.* This handsome, full-color 444-page book is filled with fact and lore about Buick. For complete contest details and your chance to win, GO BU.

Tele-Charge's Theatre Buff Brain-Buster Quiz.

Test your stage savvy with Tele-Charge's monthly quiz. Every month a new collection of trivia will challenge you. At month's end, one winner is randomly selected from those who've answered correctly.

The grand prize for the month of January is the official souvenir program book from "Les Miserables." This oversized book includes lavish photographs from the international sensation, along with production history, a complete synopsis, and notes from the creative artists who brought "Les Miserables" to the stage.

For your chance to win, GO TC.

Software Discounters' Lucky 5 promotion.

Every month, five lucky shoppers, selected at random, win a $10 discount at Software Discounters of America. To find out if you're one of the Lucky 5, simply visit Software Discounters and read their monthly NEWSFLASH. If your name is one of the five listed at the end, you win. It's that simple.

If you've ever made a purchase from SDA, you're automatically entered. If you're not a customer yet but would like to be included in the pool of potential winners, send SDA an EasyPlex at 70007,1622. GO SDA

MALL DIRECTORY

ARTS, MUSIC, VIDEO

CD Compact Disc Club ★
CM The Classical Music Club
DA Discovery Artists
MMA Metropolitan Museum of Art ★
MAO Music Alley Online
RCA RCA Music Service
RT Record and Tape Club ★
TC Tele-Charge—Theatre tickets
VC The Video Club ★
WH Windham Hill ■ ★

AUTO

DU ABC Compu-Lease
AQ Autoquot-R
AV AutoVision
BU Buick Magazine ■
FMC Ford Motor Co. ■

BOOKS/PERIODICALS

AS American Magazine Subscriptions
AN Antic Software †
BAL Ballantine Books
DJ Dow Jones & Company
DR Dreyfus
MH The McGraw-Hill Book Co. ■ ★
MER Mercury House
PB Penguin Books ■
BK Small Computer Book Club
TL Time-Life Books
WB Walden Computer Books ■ ★
JW John Wiley & Sons ■ ★

BUSINESS & FINANCE

IN Auto Write
INC Business Incorporating Guide
DJ Dow Jones & Company
HRB H&R Block
HRA Halvorson Research Associates
IS Investment Software ■
LA The Law Store †
TKR Max Ule Discount Brokerage
NN NewsNet

CLUBS & MEMBERSHIPS

CM The Classical Music Club
CD Compact Disc Club ★
NCW National Computer Warehouse Club
KC New York Kennel Club
RT Record and Tape Club ★
SAC Shoppers Advantage
BK Small Computer Book Club
TL Time-Life Books
VC The Video Club ★

COMPUTING

AN Antic Software †
ATI American Training Institute †
CDA CDA Computer Sales ■ ★
CE Computer Express ★●
DM Direct Micro ■ ★
FWC Fort Worth Computer †
IS Investment Software ■
MM Marymac Industries
MNU Menu †
NCW National Computer Warehouse Club
PT Paradise Technology
RD R+R Direct ■ ★
SAF Safeware Computer Insurance ■
SDA Software Discounters of America
SP Some Things Special
WB Walden Computer Books ■ ★

GIFTS & COLLECTIBLES

BL Bloomingdales
COF Coffee Emporium ■
CT Countree Reflections
CR Crabtree & Evelyn ■ ★
DS Desserts Direct ■
DD Don's Dollhouse & Miniatures ● ★
ED Executive Depot †■ ★
FFS Florida Fruit Shippers ■
GA Games Galore †
GC Godiva Chocolates ■ ★
GR Annemarie G. Schaffer
IR Indian River Citrus †■ ★
IV Ivory Cache ■ ★
LS LifeSpan
OL Olympic Gift Store ■ ★
PF Pepperidge Farm ■ ★
RM Rent Mother Nature
SL Sharon Luggage and Gifts
SIM Simon David ■ ★
SP Some Things Special
WK Walter Knoll Florist ●

GOURMET FOODS & FLOWERS

GC Godiva Chocolates ■ ★
COF Coffee Emporium ■
DS Desserts Direct
ED Executive Depot †■ ★
FFS Florida Fruit Shippers ■
IR Indian River Citrus †■ ★
PF Pepperidge Farm ■ ★
RM Rent Mother Nature
SIM Simon David ■ ★
WK Walter Knoll Florist ●
WE Williams & Eeden Garden Center ■ ★

HEALTH & BEAUTY

BL Bloomingdale's
CR Crabtree & Evelyn ■ ★
EE Elite Eyewear ■ ★
GN General Nutrition Corporation ■ ★
HR Harris' Scent-Sations
LS LifeSpan

HOBBIES, TOYS & PETS

AC Aero Academy
DD Don's Dollhouse & Miniatures ★●
GG Games Galore †
HTH The Heath Co. ■
HC Hobby Center Toys ■ ★
KC New York Kennel Club
PW Petworks
TSR TSR Games Shoppe ■ ★
WE Williams & Eeden Garden Center ■ ★
TP Traveling with Your Pet

THE MENS SHOP

APC Apparel Concepts for Men ■
BR Brooks Brothers ■ ★

THE WOMENS SHOP

BR Brooks Brothers ■ ★
HR Harris' Scent-Sations
GR Annemarie G. Schaffer

MERCHANDISE & ELECTRONICS

ARI Air-Conditioning and Refrigeration Institute
AE Ankai Electronics ■ ★
CEA Competitive Electronics and Appliances
ORD CompuServe Store
HS Hammacher Schlemmer ■ ★
HTH The Heath Co. ■
PS PanSon Electronics ★
SAC Shoppers Advantage ★

OFFICE SUPPLIES & SERVICES

IN Auto Write
DM Direct Micro ■ ★
EX Executive Stamper
LA The Law Store †
FR First Run Computer Services
RD R+R Direct ■ ★
SAF Safeware Computer Insurance ■
SC Stationery Center ● ★
TII Globalink

SPORTS & LEISURE

AC Aero Academy
CO Char-Broil Grill Outlet
EE Elite Eyewear ■ ★
GG Games Galore † ■ ★
HS Hammacher Schlemmer ■ ★
OL Olympic Gift Store ■ ★
RR Rin Robyn Pool 'N Patio ■

TRAVEL & VACATIONS

AF Air France ■
BH Bargain Holidays of Florida
EV ENDLESS VACATION TRAVEL ★
OAG Official Airline Guide
SL Sharon Luggage and Gifts
TP Traveling with Your Pet

■ Offers free print catalog.
★ Denotes electronic order form for use with print catalog.
● Credits cost of print catalog toward purchase.
† Denotes new merchant.

Let them eat cake, from Desserts Direct.

Congratulations to the following winners of Desserts Direct's Birthday Cake of the Month Contest. Each winner was awarded a scrumptious cake of his or her choice.

- *August 1988.* Bill Murphy of Wood Dale, Ill., chose the Gourmet Chocolate Truffle Cake for his birthday.
- *September 1988.* Julia Zimmerman of Orlando, Fla., chose the Black Forest Cheesecake for her birthday.
- *October, 1988.* Carmelita Abrams of Des Moines, Iowa, also chose the Gourmet Chocolate Truffle Cake for her birthday.

Win the cake of your choice. When is your birthday? Register online at Desserts Direct and you could win the cake of your choice. Every month, one lucky subscriber eats the cake of his or her choice, compliments of Desserts Direct. For your chance to win and a free cake brochure, GO DS.

Computer Express congratulates 'Go For The Gold' contest winners.

Computer Express congratulates the following subscribers, winners in its fall "Go For The Gold" contest:

Gold: John Simmons
Silver: Murray Barnett
Bronze: Marvin Olson

The three winners received gift certificates from Computer Express by coming closest to correctly guessing the number of medals the United States won in the Olympics.

Free, Free, Free.

Free copies of new 1989 catalogs from Pepperidge Farm (GO PF), PanSon Electronics (GO PS), TSR Games Shoppe (GO TSR), CDA Computer Sales (GO CDA), Simon David (GO SIM), Crabtree & Evelyn (GO CR) and many more. See The Mall's online Catalog of Catalogs, located in "Shop The Mall." GO MALL

GOINGS ON AT A GLANCE

JANUARY

					1	2
3	4	5	6	**7**	**8**	9
10	11	12	13	**14**	**15**	16
17	18	19	20	**21**	**22**	23
24	25	26	27	28	29	30
31						

FEBRUARY

	1	**2**	3	**4**	**5**	6
7	8	9	10	**11**	**12**	13
14	15	16	17	**18**	**19**	20
21	22	23	24	25	26	27
28	29					

Happenings

Software Discounters' Bi-Annual Super Sidewalk Sale. GO SDA
Feb. 2: Sale opens online, with software for virtually any computer.

Automotive Advice from Ford Expert. GO FMC
Jan. 14: 4-6 p.m. EST

Fun & Games

Consult Cupid GO MALL
Feb. 4: counseling by keyboard 1-3 p.m.
Feb. 14: 4-6 p.m. EST

Software Discounters' Lucky Shopper Promotion GO SDA
Jan.-Feb.: Read SDA's online newsletter to find out if you're a winner.

Tele-Charge's monthly Theatre Buff Brain Buster Quiz GO TC
Jan.-Feb.: You could come up a winner.

Buick's Heritage Quiz GO BU
Jan.-Feb.: Calling all car buffs.

Dessert Direct's Birthday Cake of the Month Contest GO DD
Jan.-Feb.: You could win the birthday cake of your choice.

Free Shopping

American Training Institute GO ATI*
Jan. free shopping: Jan. 7, 8
Feb. free shopping: Feb. 4, 5

Antic Software GO AN*
Jan. free shopping: Jan. 21, 22

AutoVision GO AV*
Jan. free shopping: Jan. 14, 15
Feb. free shopping: Feb. 11, 12

Brooks Brothers GO BR*
Jan. free shopping: Jan. 14, 15

Buick Magazine GO BU*
Jan. free shopping: Jan. 7, 8, 21, 22
Feb. free shopping: Feb. 11, 12

CDA Computer Sales GO CDA*
Jan. free shopping: Jan. 14, 15
Feb. free shopping: Feb. 4, 5

Computer Express GO CE*
Jan. free shopping: Jan. 7, 8

Endless Vacation Travel GO EV*
Jan. free shopping: Jan. 7, 8, 14, 15
Feb. free shopping: Feb. 4, 5

Executive Depot GO ED*
Jan. free shopping: Jan. 14, 15
Feb. free shopping: Feb. 11, 12

Florida Fruit Shippers GO FFS*
Jan. free shopping: Jan. 14, 15

Ft. Worth Computer GO FWC*
Jan. free shopping: Jan. 14, 15

Indian River Citrus GO IR*
Jan. free shopping: Jan. 7, 8

The Law Store GO LA*
Jan. free shopping: Jan. 7, 8
Feb. free shopping: Feb. 4, 5

Menu GO MNU*
Jan. free shopping: Jan. 14, 15

PanSon Electronics GO PS*
Jan. free shopping: Jan. 7, 8
Feb. free shopping: Feb. 4, 5

Simon David GO SIM*
Feb. free shopping: Feb. 4, 5

Software Discounters of America GO SDA*
Jan. free shopping: Jan 14, 15

Some Things Special GO SP*
Jan. free shopping: Jan. 21, 22

Traveling With Your Pet GO TP*
Jan. free shopping: Jan. 21, 22

Walden Computer Books GO WB*
Jan. free shopping: Jan. 14, 15, 21, 22
Feb. free shopping: Feb. 4, 5, 18, 19

Directories and Games Available in Forums

The libraries in CompuServe's forums are filled with thousands of programs and textfiles. The following are a few of the files uploaded to the libraries in recent months. For a more up-to-date list, check the weekly "Uploads" columns in *Online Today Daily Edition* by typing GO OLT-3700 at any CompuServe prompt.

AAMSI Medical Forum
(GO MEDSIG)

Steroid Dangers—The dangers of anabolic steroids are graphically displayed in a program for IBM PCs and compatibles with ANSI installed. Highlights the dangers of using anabolic steroids to increase muscle mass, endurance, performance or strength. File STEROI.ARC in Library 8.

AMIGATECH FORUM
(GO AMIGATECH)

Directory Utility—A new directory utility program that has an easy-to-use interface. Comes with a spooler program that ClickDOS controls to print the textfiles you specify from the SU-type menus. When iconified, it requires only 1K of RAM. File CLICKD.ARC in Library 13.

ASHTON-TATE FORUM
(GO ASHFORUM)

DBase Vendors—More than 400 dBase utility vendors, in a DBF file, with names, addresses and telephone numbers. For users of dBase compatible compilers and dBase utility programs. File DBUCOM.ARC in Library 5.

AVIATION FORUM
(GO AVSIG)

Air-traffic Game—An air-traffic controller simulation for IBM PCs and compatibles in which you issue commands to navigate aircraft on your own "scope" to avoid collisions or near misses and get all the planes to their destinations. File ATC.ARC in Library 0.

BORLAND APPLICATION FORUM
(GO BORAPP)

Appointment Printer—A program to display the day's appointments in a Sidekick Plus appointment file from a batch file or at the command line without invoking Sidekick Plus. File APP.ARC in Library 2.

COMMODORE MUSIC, GRAPHICS AND GAMES FORUM
(GO CBMART)

Trivia Quiz—Version 2.0 of *Trivia* for the Commodore 64 and 128. Game contains introductory graphics, music and more than 250 questions. File TRIVIA.BIN in Library 8.

CONSUMER ELECTRONICS FORUM
(GO CEFORUM)

Emmy Winners—Complete list of winners in the 40th annual Emmy Awards, including technical awards. File EMMY.88 in Library 6.

CROSSTALK FORUM
(GO XTALK)

Command Delay—WAITUNTIL, a simple delay mechanism to activate a specified Crosstalk Mk.4 command, script at a specified time. Solicits a command at the time it is to be executed. File WAITU.ARC in Library 5.

DISABILITIES FORUM
(GO DISABILITIES)

Itzhak Speaks—Transcript of a talk by Itzhak Perlman at Brooklyn College. The violinist recounts experiences resulting from his mobility impairment from childhood polio. File ITZHAK.TXT in Library 0.

EDUCATION FORUM
(GO EDFORUM)

Technology Talk—Article reports observations made in the new report "Power On: New Tools For Teaching and Learning," released by the Congressional Office of Technology Assessment. The report addresses the role of the federal government in helping to stimulate the introduction of new technologies in schools. File REPORT.OTA in Library 11.

GENEALOGY FORUM
(GO ROOTS)

Mayflower Descendants—A textfile containing information about joining the General Society of Mayflower Descendants. Includes a list of all the original Pilgrims known to have had surviving children. File MAYFL.TXT in Library 8.

IBM COMMUNICATIONS FORUM
(GO IBMCOM)

Procomm Script—A Procomm Plus script for retrieving information captured by CompuServe's Executive News Service. Also works as a .CMD file for Procomm 2.4.2. File ENS.ASP in Library 9.

IBM APPLICATIONS FORUM
(GO IBMAPP)

Baby Watcher—Program keeps expectant parents posted on the temporal aspects of pregnancy, such as the month and week of pregnancy, the baby's age in days and the date of expected delivery. It also provides a look at the baby's development each month. Graphics required. File BABY.ARC. in Library 11.

IBM PC JUNIOR FORUM
(GO IBMJR)

Paratrooper Game—A special patched version of the public-domain program *Paratrooper* that runs on the PCjr. File JRTROO.ARC in Library 5.

IBM HARDWARE FORUM
(GO IBMHW)

Voice Digitizer—A file from Alan D. Jones on how to digitize your own voice and play it through the speaker of an unmodified IBM PC. Includes documentation, source code and a schematic of the digitizing tool. The schematic is a file that prints on an H-P Laserjet Plus. File HIDI.ARC in Library 4.

MAUG MAC FUN FORUM
(GO MACFUN)

Minefield Dangers—*InMines*, a game in which you have to cross a 16-by-16 mine field without blowing up. Select how many mines to sow in the field before playing. File MINES in Library 3.

PHOTOGRAPHY FORUM
(GO PHOTOFORUM)

Slide Labels—A menu-driven slide label-printer program for IBM PCs and compatibles driving Epson or compatible printers. The program generates five 18-character lines in subscript size for standard address labels. File SLABEL.ARC in Library 16.

PLAY-BY-MAIL GAMES FORUM
(GO PBMGAMES)

Conference List—Regularly scheduled conferences in the Play-By-Mail Games Forum. File PBM.CON in Library 1.

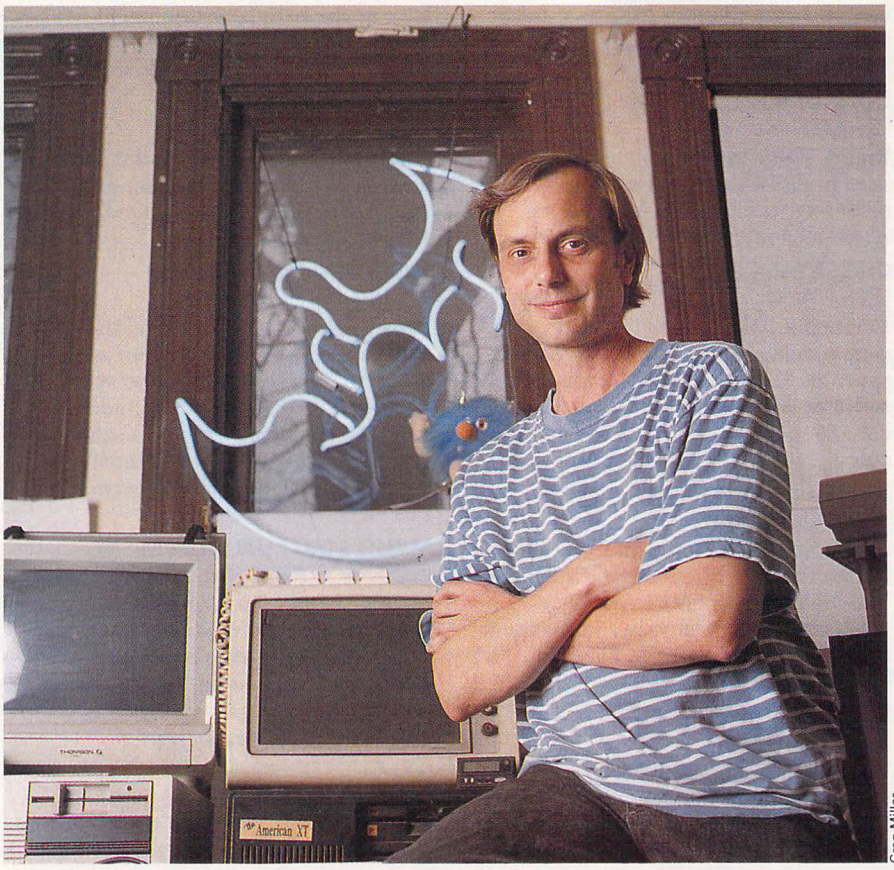
PUBLIC RELATIONS AND MARKETING FORUM
(GO PRSIG)

PR Help—A primer on effective use of the computer for the small public relations business, written by David Vine. Touches on most aspects of computer use for the PR practitioner. File VINE.DO in Library 1.

TRAVEL FORUM
(GO TRAVSIG)

Train Routes—A description of several of Amtrak's routes including the scenery and the trains found on Amtrak's major long-distance routes. File AMTRAK.RTS in Library 1.

David Peyton co-authored How to Get the Most Out of CompuServe *and* Advanced CompuServe for IBM PC Power Users. *His CompuServe User ID number is 76703,244.*



Greg Miller

A little homework could have spared him a 30 percent loss: *Hinrichs*

Arm Yourself with Advice

Get Started in the Market with the Help of Online Resources

by Cathryn Conroy

Making your first stock purchase or mutual fund investment can be both exhilarating and scary. What if you lose money? What if you make a lot? Tough questions to be sure, but several resources on CompuServe can make this first investment step easier.

Some of the best human resources online are members of the Investors' Forum (GO INVFORUM), many of whom have learned firsthand what *not* to do, and want to help others avoid repeating their mistakes. One of these is Investors' Forum Administrator Mike Pietruk, who purchased his first stock eight years ago.

Although he didn't always stick with it, Pietruk says that his first stock strategy proved to be the strongest: Buy good stocks with long-term potential. He carefully studied the lists of stocks supplied by a broker and settled on two companies. His picks were good; both went up about 15 percent to 20 percent before he sold them. Then, he recalls, "I got greedy, forgot about long-term potential and expected to get a quick profit on some high-risk stocks that I hadn't investigated thoroughly. I lost money, but I learned an important lesson about doing my 'homework' and being patient."

Investors' Forum member Paul Hinrichs learned a similar lesson when he took a 30 percent loss on precious metals, his first major investment and one he made strictly on the advice of a broker. "I have since seen many brokerage recommendations proven wrong," he says. Hinrichs now conducts his own technical analysis on all his investments.

Steve Hovland, author of the Investors' Forum's *Market Muse* newsletter, also had an unfortunate experience as a first-time investor. Simply because it was there, he bought company stock through a payroll deduction plan at $62 a share, and watched in shock as it plunged to a low of $27. He wisely controlled his panic, held onto the stock and later sold it back at $62. The experience convinced Hovland of the importance of arming himself with the facts, and he began looking for a better trading plan.

As a result of their own mistakes as novices, these investors have several pieces of hard-won advice for fledgling investors:

Don't rely on tips. Instead, study the market carefully and analyze a company's performance thoroughly before you buy. "If someone tells you a stock is sure to go up 50 percent, find out for yourself why it's being touted," says Pietruk.

A good source for investment ideas as well as market analysis is S&P Online (GO S&P), a database provided by Standard & Poor's that offers recommendations of stocks based on long-term gain, promising growth and other criteria as well as individual company profiles.

Use long-term strategies where the risks and returns are reduced. When you examine a stock's long-term potential, look at its past yields—if the yield is lower, the price is higher. All stocks fluctuate over time, so buy when the yield is high and sell the stock at its historical low yield. Also look at companies that show steady or rising earnings trends and those that have raised their dividends over time.

"Look for well-capitalized companies with a lot of outstanding shares. This means they are liquid and you can get in and out easily," says Pietruk, who also advises first-timers to buy only stocks of well-established and well-known firms rather than venture endeavors.

Historical yields, earnings and a host of other fundamental criteria can be researched using Disclosure Company Screening (GO COSCREEN). Thousands of companies can be quickly researched, then narrowed to those providing the particular characteristics you are looking for.

Decide how much you can afford to lose, then carefully study the market before making a move. This is a good plan if you're too adventurous to stick to the "buy and hold" strategy. If a strong industry stock is on the rise, buy it—but if and when the stock reaches your "personal loss point," sell it.

An online resource for your continuing research is the Executive News Service (GO ENS). Through ENS, you

can establish a clipping folder that will electronically collect all of the news from five major news sources (including McGraw-Hill News, OTC NewsAlert and Reuters Financial Report—three services that specialize in business and financial news) on your areas of interest. If there are significant financial changes in your company, you can find out that information quickly and take action to increase your gains or minimize your losses.

A caution: Because you must continually monitor the market when making short-term investments, this route is more time-consuming than investing in long-term stocks. That's why experienced investors' portfolios generally contain both long- and short-term investments.

Examine the issuing company's dividend history. Dividends are paid in straight cash and only solvent companies can afford to pay them.

To learn more about companies' dividend histories, type GO DIVIDENDS. Enter the company ticker symbol at the Issue prompt (for example, HRB for H&R Block). The system prompts for a date range, or you can simply enter the most recent number of dividends you would like to see. For more details, check the Detailed Issue Examination Service (GO EXAMINE). This provides indicated annual dividend per share, which is computed by taking the regular cash dividend times the frequency of payments over a 12-month period.

Invest in mutual funds. Because mutual funds are managed by financial experts who spread the risk over a variety of stocks, many new investors choose to invest in mutual funds.

For information on no-load (no sales fee) or low-load (minimal sales fee) mutual funds, type GO NOLOAD for the No-Load Mutual Fund Directory. Here you'll find everything from tips for the first-time investor (including a glossary of terms) to programs that search for funds, as well as a list of firms that distribute no-load and low-load mutual funds.

At what point will you move from being a novice to an experienced and serious investor? According to Hovland, you're on your way when you understand the value of seriously studying the market and taking care of your own investments.

Cathryn Conroy is a contributing editor of Online Today. *Her CompuServe User ID number is 70007,417.*

Free Service Looks Up Stock Identifiers

by Carole Houze Gerber

A free service called Issue/Symbol LOOKUP has been developed to replace the old CUSIP Lookup program, which carried a 25-cent surcharge. LOOKUP, which is more powerful and comprehensive than the previous service, will list all issues found for a given company (or other issuer) and report the ticker symbol, CUSIP number and exchange along with a description of each issue. Because it is menu-oriented, with the ability to enter additional text for narrowing, Issue/Symbol LOOKUP is also easy to use.

Type IBM when doing a ticker symbol search, for example, and you'll be shown the total number of issues—87—as well as a breakdown of the types of issues: two equities, 21 debt issues and 64 options. Response to another menu prompt will display a description of the issues in each category. Issue/Symbol LOOKUP offers a more detailed issue breakdown by separately listing options, bonds, stocks, and newly added market indexes and mutual funds.

To access Issue/Symbol LOOKUP, type GO LOOKUP at any prompt. A search menu directs you to search by company name, ticker symbol, CUSIP number, CNUM or primary SIC code.

Ticker symbols, those capital letters that identify stocks, are not all standardized industrywide. But because they're simple to remember, ticker symbols are still the "identifier of choice" for most people.

CUSIP numbers for securities—the acronym stands for Committee on Uniform Securities Identification Procedures—are standardized identifying numbers recognized throughout the industry. Like snowflakes, no two are alike. IBM's CUSIP, for example, is 45920010. H&R Block's is 09367110.

Two new search capabilities, not available in CUSIP, are featured in LOOKUP: CNUM and SIC codes.

The first six characters of the CUSIP number identifying the issuer are called the CNUM. Because it identifies the issuer only and not a particular type of issue, such as common stock, the six-digit CNUM in LOOKUP will produce a broader category of information than the eight-digit CUSIP number, whose last two digits numerically specify a particular type of issue.

SIC (Standard Industrial Classification system) codes are the cataloging system the federal government uses to classify companies by type of business. Primary SIC codes show the primary business of companies, but not secondary businesses.

Business Briefs

New Command in Financial Area

Changing date ranges within CompuServe's historical pricing services is more flexible with the /Date command. Date ranges in the financial pricing programs enable you to compare the relative performance of different securities over the same time span—a powerful time-saving feature. The date range within a program can be modified at any time with the /Date command by typing /DATE at the Issue prompt and entering a new date or range. The new range is effective until it is changed. GO SECURITIES

Features Added to Ticker Files

The ticker input file, CompuServe's time-saving device for entering multiple company ticker symbols, supports nested ticker files and multiple companies on the same line. To nest ticker files within a file, type @ followed by the ticker file name. For example, a ticker file of transportation companies can include @AUTOS (for auto companies) or @RAILS (for railroad companies).

In addition, as many as 20 ticker symbols or CUSIP numbers can be typed on the same line in a ticker input file. Each must be separated by a comma. Ticker files can be entered at most Issue prompts in the Financial Services area. GO TICFIL

Could *Your* Business be Affected by Happenings in the Computer World Today?

Find out in *Online Today Daily Edition*. GO OLT-90 from any prompt on the CompuServe Information Service to get daily-updated computer news.

ONLINE TODAY

Get Maximum Data for Minimum Price

by Mike Pietruk

Trying to stretch the weekly paycheck is a way of life for many of us. We look for sales, shop at outlet stores and take advantage of discounted airline fares when possible. Similarly, as intelligent consumers of online investment information, we want to minimize the cost of locating and collecting data by using online time efficiently and making judicious use of surcharged products.

Here are some excellent ways to proceed:

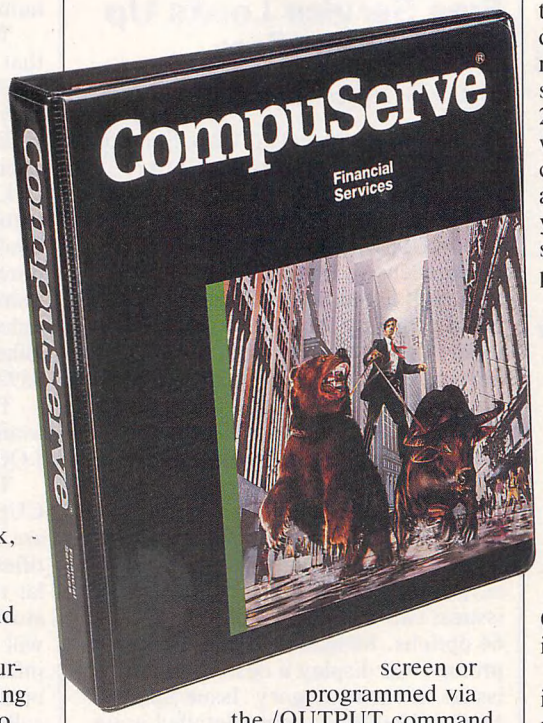
Use the *CompuServe Financial Services Users Guide*. This handbook, available for $13.95 by typing GO ORDER, thoroughly surveys the varied financial-service offerings and provides detailed explanations on how to use them. You will save yourself many times its price by becoming familiar with products before you go online.

Take advantage of HRB. Type GO HRB to take a free "test drive" of financial services offered through H&R Block, CompuServe's parent company.

Check the online Financial Help pages. The Financial Help pages (GO FINHLP) provide an abundance of information. Because many of the services carry surcharges in addition to standard connect rates, it is a good idea to occasionally check Option 3 from the main Financial Help menu for a transaction price chart for all offerings. Many subscribers print this list and post it near their computers. Option 2 from the menu provides your current total surcharges.

Set up ticker files. If you regularly retrieve current day or historical prices on the same list of issues, you should consider setting up ticker files. Type GO MQUOTE to reach the MicroQuote area, then type EDIT TEST01.TIC (or any file name of up to six characters followed by a period and an extension suffix of up to three characters). Next, type in the ticker symbols of the securities you wish to follow, one per line. Close the file by typing /EX on a line by itself.

Ticker files are as easy to use as they are to create. At the Issue prompt, type an @ immediately followed by the file's name. Your ticker file will be entered into the program. The resulting quotes can be sent to your terminal screen or programmed via the /OUTPUT command to your personal file area for storage. From there, you can download the data using an error-checking protocol such as Quick B or XMODEM. To learn more about these useful files, GO TICFIL.



A tip for Lotus 1-2-3 spreadsheet users: If you name your output file to include the reserved extension of .PRN (//OUTPUT=TEST01.PRN), the output file is saved in a format that can be imported into Lotus 1-2-3 after it is downloaded.

Get current quotes after the market closes. Rates for current quotes are higher during prime time than evening and weekend hours. However, the Quick Quote (GO QQUOTES) surcharge of seven cents an issue drops to two cents immediately after closing prices are posted at 4 p.m. Eastern time. Using one or more of your ticker files and a 2400-baud modem, you should be able to get 50 closing prices for about $1.21 through CompuServe.

Take advantage of the Executive Option. Subscribers with the Executive Option can achieve considerable savings when retrieving stock, option, mutual fund or commodity prices. A 25 percent discount is applied to all surcharges after the first dollar of quotes has been retrieved each time you run a pricing service. The discount is not cumulative.

For instance, if you select the "Pricing History–1 issue" option from the menu and request 40 days' worth of data, the first 20 would be billed at the regular rate of $.05/quote or $1, but the second 20 days would be discounted by 25 percent so each of these quotes would cost $.0375, making the total cost $1.75 rather than $2. In addition, all subsequent requests for data while you are still in the Pricing History service would be discounted by 25 percent.

Choose your database wisely. Sometimes, you can choose between several databases to get the same information. Closing option quotes, for example, can be obtained in two ways. For $1.25, the Option Pricing program (GO OPRICE) delivers a complete report of all options on an underlying stock. However, if you don't need such comprehensive data, the cost-effective alternative is Quick Quote's Current Day Quotes (GO QQUOTES), which costs two cents an issue.

In Quick Quote, each option request is preceded by a period. For the most part, standard option symbols are used. A guide to retrieving option prices in Quick Quote as well as explanations of the variations used in the historical databases can be found in the Investors' Forum's (GO INVFORUM) Library 3 in file QUOTES.OPT.

If your memory fails, GO *NAME. One of the most frustrating experiences is to be in the middle of an online session and discover that you don't have the needed ticker symbol. You could type GO CUSIP to retrieve it, but this is inconvenient when you're in the middle of a downloading run. The *NAME look-up feature can come to your rescue. Type an asterisk followed by all or part of the company's name at the Issue prompt to get needed symbols without interrupting your work.

Other time- and money-saving tips. Market Snapshot (GO SNAP), for a dime, gives a one-screen summary of the financial markets.

If you're interested in a particular financial topic but aren't sure where to look, type GO FIND followed by the topic name to receive a list of all appropriate CompuServe services.

Finally, for a list of surcharged services, type GO RATES. And to see what you've accumulated on your current statement, type GO BILLING.

Mike Pietruk is a forum administrator of CompuServe's Investors' Forum and an assistant vice president of Preferred Savings & Loan in Chicago. His CompuServe User ID number is 76703,4346.

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Bringing Outdoors Indoors

Advice on Elk, Trout and More Resides on the Outdoor Forum

by Tom Fegely

Want to hook up with a fellow fisherman on your next trip to Florida? Hunting for advice on the best places to find elk in Arizona or grouse in New England? Need help in identifying a strange bird in your backyard, or finding the latest information about lights for cycling?

Or maybe you want insights on acid rain, toxic wastes, the effect of the fires at Yellowstone National Park or clear-cutting forests in Alaska.

Just GO OUTDOORS for CompuServe's popular Outdoor Forum and you can do it all without ... well, stepping outdoors.

With 16 interest areas ranging from skiing, camping and cycling to fishing, hunting, firearms and environment, the Outdoor Forum represents a variety of interests and specialists.

"An open public exchange of ideas and information is what makes the forum click," says Joe Reynolds, Northeast regional editor for *Field & Stream* magazine and forum administrator. Reynolds, who lists fly-fishing as his favorite outdoor sport, frequently advises others on angling hot spots or fly patterns and lures that attract trout in Montana, bonefish in the Florida Keys or toothy pike in Ontario.

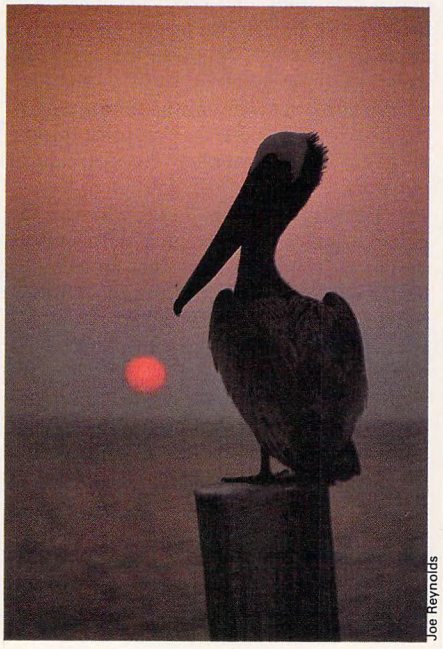
Says Reynolds, "Our lineup of forum administrators and specialists includes experts in various outdoor fields, but if they can't answer a question, a forum member will usually jump in with a response."

Among the online "experts" are members of the Outdoor Writers Association of America, which uses the forum as its electronic home. OWAA is a professional organization of men and women who make their livings writing, photographing, broadcasting or lecturing on the great outdoors.

Les Line, editor-in-chief of *Audubon* magazine, is an OWAA member whose contributions on the forum have ranged from verifying the sighting of a parula warbler in a Brooklyn woman's backyard to offering thought-provoking opinions and facts on environmental issues.

"I'm here to help answer questions about wildlife or natural history and to lend perspective to discussions about environmental issues," Line says. "I also answer electronic queries from prospective contributors." Line also up loads thought-provoking articles by *Audubon* writers pertaining to wildlife and environmental subjects discussed in the forum.

While identifying a bird via com-



Joe Reynolds

puter may be a challenge, recommending places of interest where birdwatchers (serious birdwatchers like to be called "birders") can find concentrations of ducks, sandhill cranes, eagles or other species is a bit easier, says the widely-traveled Line.

Assistant Forum Administrator Tony Mandile is a full-time, free-lance outdoor writer and the Arizona editor for *Outdoor Life* magazine. His hunting and fishing pursuits take him far afield from his cactus-studded base. Normally easygoing and ready to give advice on the best hunting and fishing areas in the west, Mandile has an affinity for getting involved in oft-heated discussions between anti-hunting advocates or others with divergent opinions on game management or environmental matters.

"Luckily, cool heads prevail and the debates generally conclude with everyone expressing opinions but no one really winning," says Mandile. "But, most important, the forum provides everyone an opportunity to express his views."

Besides enjoying a good online argument, Mandile has also benefited by learning more about one of his favorite diversions—shooting sports. "Over the years, I thought I'd learned a lot about firearms and ballistics, but I can't believe how much I've learned from other forum members in the firearms section of the forum," Mandile says.

In addition to OWAA and the National Audubon Society, outdoor lovers also have direct access to a respected array of national conservation groups including Trout Unlimited, the National Wildlife Federation, the Izaak Walton League of America, Ducks Unlimited, the Federation of Fly Fishers, the Sport Fishing Institute and the Sierra Club. Member interests are diverse: Claude Mathis, a representative of Earth First!, a militant environmental activist group, is a daily visitor, as is Tom Gresham, editor of *Handloader* magazine. Louis Dawson of *Climbing* magazine is frequently available to answer questions about skiing, climbing and backpacking.

Rich Emmings of Massachusetts is the forum's firearms specialist. In addition to answering questions about shooting sports, the right to keep and bear arms, and technical aspects of firearms, Emmings hosts a conference on firearms every Thursday evening at 11 p.m. EST in the CO area of the forum.

Other regular conferences, held each Sunday at 9 p.m. and Tuesday at 10 p.m., allow forum members to let their fingers do the talking on any outdoor-related topic. For example, last summer's fires in Yellowstone caused hot debate among members on the wisdom of the National Park Service's official policy of allowing forest fires to run their natural course.

Occasionally, special conferences are scheduled with experts in specific fields. Reynolds posts the conference time and topic prior to meeting time. Everyone is welcome.

"The Environment message section is one of the busiest areas of the forum," Reynolds says. "While Outdoor Forum members may be here because of their specific and varied interests and often disagree on things, it shows their common concern for protecting the outdoors.

"Next to being outdoors, I can't think of a better way to spend time than by exchanging ideas with others who have similar interests."

The next time you have a few spare minutes indoors, GO OUTDOORS.

Tom Fegely is the outdoors editor of The Allentown Morning Call, *field editor for* Outdoor Life *and a northern host of "Escape to the Outdoors," a syndicated radio program.*

Outdoor Forum Organizations

Ducks Unlimited
Earth First!
Federation of Fly Fishers
Izaak Walton League of America
National Audubon Society
National Wildlife Federation
Outdoor Writers Association of America
Sport Fishing Institute
Trout Unlimited
US Fish & Wildlife Service
Sierra Club

NASA, TV, Micro Link Electronic Trip

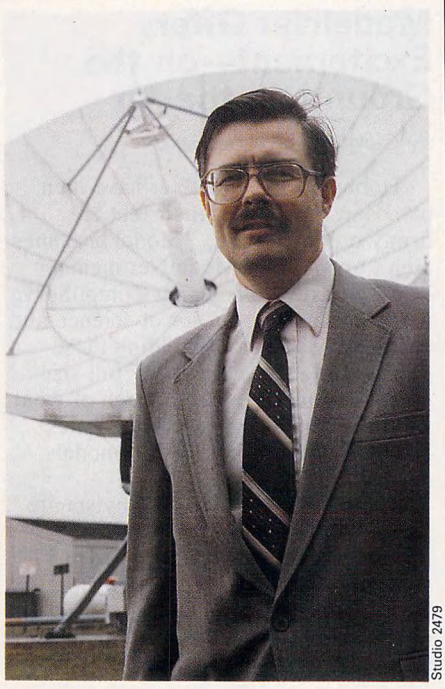
by Yvonne Heather Burry

It was billed as an "electronic field trip," an online conference in which questions typed online would feed into a television studio for guest Peter Taylor, director of the American Sunspot Program. Naturally, queries and information on sunspots were exchanged. But much more important was the way in which the half-hour interactive television and computer hook-up worked. For NASA and CompuServe, principal players in the event, last summer's experiment was an "engineering test" of a potential multimedia toolbox for information exchange.

"It was a way to look at using advanced satellite technology to promote educational applications," says Dick DeLoach, Space and Astronomy Forums administrator and co-investigator on the project. With the ACTS (Advanced Communications Technology Satellite) slated for shuttle deployment, DeLoach and principal investigator John Bluck, television manager at NASA Lewis Research Center in Cleveland, wanted to explore the potential merger of computer communications and television. The goal eventually would be to enlist a multimedia technique to link students or other interested persons with information on events as they occur, anywhere in the world.

The electronic field trip took advantage of a new CompuServe feature, the Convention Center, to more than quadruple the number of participants in an online conference by holding incoming questions in a buffer. Other even newer combinations of technology—for example, satellite link-up, voice synthesizer and interactive multimedia technologies—helped connect questioners and the NASA television studio at the Kennedy Space Center in Florida. The program was transmitted from Kennedy over the NASA Select TV network to all NASA facilities and received at numerous sites equipped with a satellite dish.

"The idea was that instead of videotex or character generation on screens like last time, when the Convention Center was used for the Science Fiction/Science Fact event, we could hook up the synthesizer's ASCII input and give ASCII output," says Bluck. This meant that questions coming in would not scroll across the bottom of the screen like a news bulletin. (Previous experience showed this technique to be "distracting.") Instead, questions were fed through a voice synthesizer, which presented them to Taylor.



Educates by 'multimedia toolbox': *Bluck*

Questions came from a half-dozen locations, including the CompuServe Convention Center (where CompuServe members uploaded their queries) and several NASA installations. The Convention Center is an environment analogous to a moderated meeting, where individuals can be recognized to speak.

DeLoach controlled or moderated the buffer, letting questions go through to the synthesizer as needed. He says the buffer allowed more than 132 comments in an hour—much more than the usual 10-10-10 conference standard (10 questions, 10 answers, 10 comments).

The voice synthesizer on this occasion was at Dr. John Eulenberg's laboratory at Michigan State University. "Normally, we would have put the synthesizer in the studio," says Bluck, "but this time we decided to send the voice by telephone." This set-up, with satellite feed and phone line use, caused a slight delay as questions made the rounds from keyboard initiation to Michigan for conversion to voice, then to Kennedy for presentation to Taylor. "We learned how we need to plan it next time around ... with the synthesizer in the studio," Bluck admits.

Practice runs were held before the actual electronic field trip took place. Several changes were made to help the event run more smoothly. One such change was to scrap the idea of having a "male" voice synthesizer for questions from men and a "female" voice synthesizer for women. Last-minute worries about whether both voices could be clearly heard and understood resulted in the use of only the male robot voice.

Even though viewers could have called the television studio directly via telephone, the electronics are destined for more complex uses in the future. So the purpose of the electronic field trip was to see how well the various media could work together to provide interactive television.

In similar events planned for the future, the concept will undergo improvements and expansion. Already there are plans for another field trip in early 1989, with more publicity and an expanded audience, Bluck says.

As the succession of electronic field trips unfolds, many new features will exploit the technologies involved. "Now we treat the computer like a surrogate phone," DeLoach says. "In the Conference Center, we have software that can tally yes/no polling of the audience." DeLoach wants to add polling, but extend it to multiple choice.

"Ultimately, we could have a show such as '60 Minutes,' where everyone watching could comment. With keywords such as 'agree' or 'disagree,' the computer could truly select random comments." Further sorting for a much larger set of keywords would also be possible, to categorize incoming questions from the viewing audience.

Because "voice recognition can't work over phones yet," Bluck says, the present multimedia concept will rely on keyboards and the voice synthesizer. At least for now.

As use of the ACTS advances, DeLoach envisions spot communications that could focus transmission on selected areas—school districts, for example—to link students interactively with newsmakers.

Bluck likes the idea of "democratizing TV and making it interactive." And with all of the NASA involvement and interest in multimedia information exchange, the combining of the best features of many communications formats will likely move from curiosity to full-fledged emerging technology.

Yvonne Heather Burry is a free-lance writer based in Columbus, Ohio. Her CompuServe User ID number is 76703,3057.

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ModelNet Offers Excitement—on the Ground, in the Air

by Carole Houze Gerber

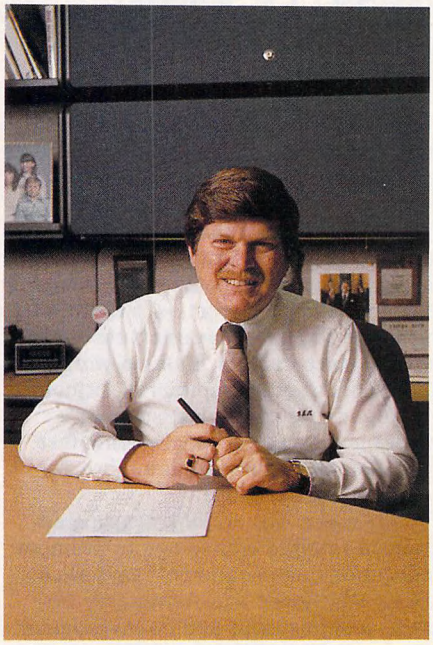
Hobbyists in ModelNet have their planes in the air, but their feet are firmly on the ground. "Model airplanes aren't toys," says ModelNet member Dan Meeks, who is also a CompuServe product manager. "A lot of science and engineering goes into building these planes. In fact, nearly every full-size plane was once a model. Much of what we know about flight characteristics has been learned from flying model planes."

Many model airplane hobbyists are also licensed pilots, Meeks adds, so there is a high level of expertise brought to the airplane area of the forum, which also serves other types of hobbyists. "We have something here for model builders of all kinds," says Doug Pratt, forum administrator and special projects director and author of seven books on modeling. Car, railroad, boat and rocket model builders will also find a home on ModelNet.

Unlike, say, rock collecting or bird watching, which require minimal cash outlays, model building can be an expensive hobby. That is why those thinking about "taking off" are urged to get some online advice before heading to the hobby shop. "It is easy to spend several hundred dollars at a store for things you don't need or that are beyond a beginner's skill level," says Meeks. "People become discouraged and quit before they even get started. Online, there are many experienced members, including manufacturers of the various types of planes and equipment, who can offer unbiased advice."

Meeks once found out how handy forum membership is when he put up a message asking if anyone could tell him where to find a needle valve for a model engine that is no longer manufactured. "Several people responded, and one member sent me the part I needed at no charge," Meeks says. "I've found the message board to be one of the most useful parts of the forum."

Pratt points out that the forum's libraries are also excellent resources. Library 4, for example, contains a list of hobby stores. Library 15 contains safety information, and Library 1 has on file a complete list of model plans published by *Model Aviation* magazine.



'Model airplanes aren't toys': *Meeks*

See Library 3 for information on airplane clubs— including information on the organization headed by Pratt, the Academy for Model Aeronautics, which is the top professional organization for model airplane builders.

"Doctors have the AMA, and we have an AMA, too," jokes Meeks. "Membership in our AMA is important for a lot of reasons. One is that model planes must be flown on a proper field facility, and you must be an AMA member to use the fields, which are run by local AMA clubs. AMA membership also provides insurance and other benefits. To join online, go to Library 12 and follow the directions in INSTRUC. AMA."

Model airplane hobbyists active in ModelNet include those interested in all four varieties of planes: free flight planes, which are wind-controlled; control-line models, which fly in circles and are controlled by lines held by the controller; static models, the inexpensive plastic planes that beginners start out with; and radio-controlled planes, whose owners make up the largest segment of the membership.

Whether you're a beginner with a plastic plane who is yearning for bigger things, or an experienced model builder who wants to share information with other "old-timers," ModelNet has something to offer. To access this forum, type GO MODELNET at any prompt.

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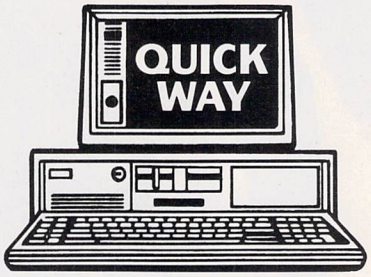

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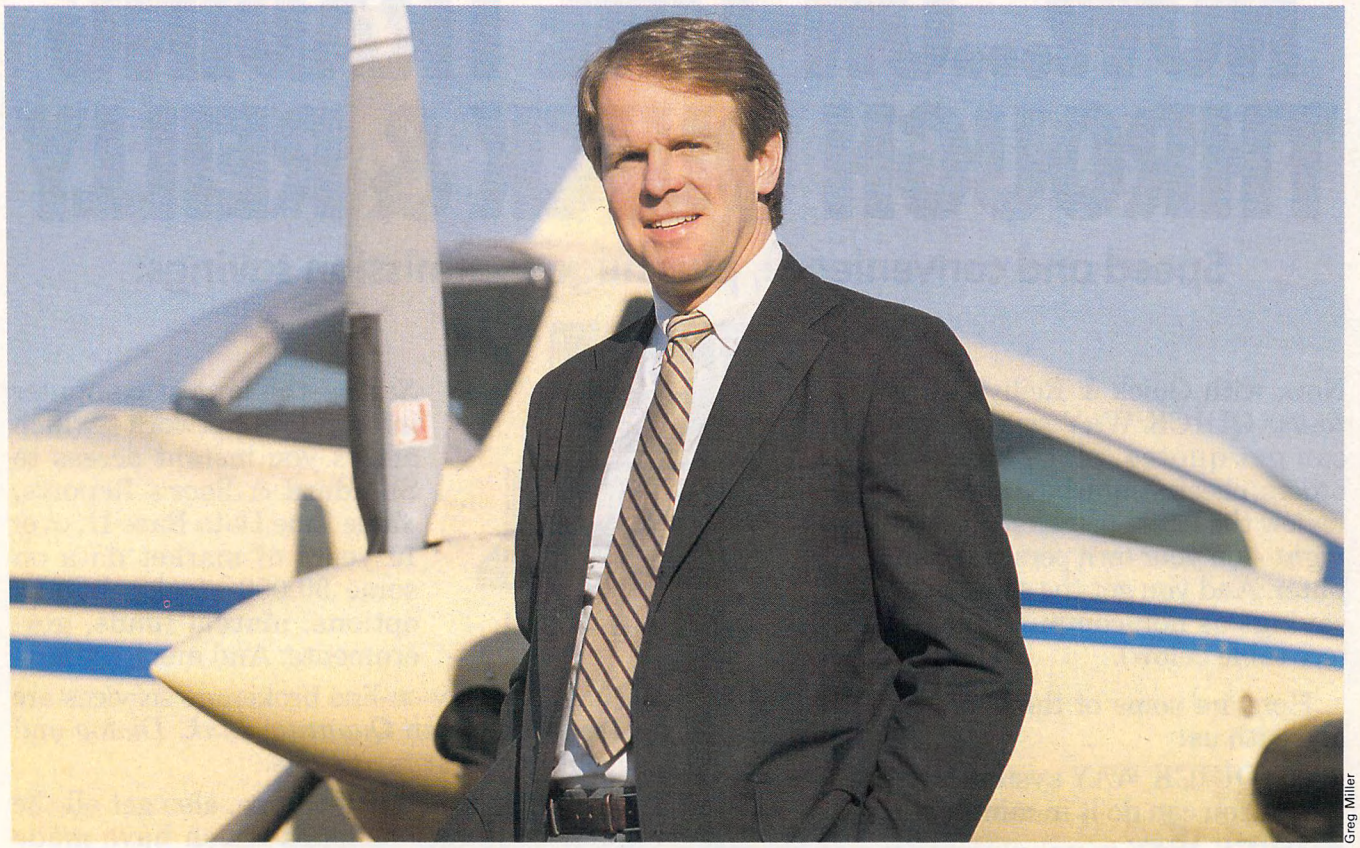

Greg Miller

Filing FAA flight plans electronically ensure safer flights, accurate fuel and mileage estimates: *Yoder*

What a Way to Fly!

FAA Filing Now Available Online in EMI Flight Planning

by Carole Houze Gerber

To non-pilots, flying a small plane may sound like risky business. But according to pilot Phil Yoder, a company president who makes about a dozen business trips a month in his six-seat Cessna 310, "I'm no daredevil. In fact, pilots are among the most safety-conscious people you're likely to meet."

Through his firm, ICOM Inc., headquartered in Columbus, Ohio, Yoder and his staff travel the world, preparing and producing audio-visual presentations for corporate clients. Yoder has flown his Cessna overseas, although most of his flights are domestic hops to New York, Texas, Florida and Illinois.

Regardless of his destination, Yoder uses CompuServe's surcharged EMI Flight Planning service (GO EMI) to make the flight plans all pilots must obtain and file with the FAA before each trip. A new EMI service—one Yoder has longed for—enables pilots not only to obtain computerized flight plans online but also to file them online,thus eliminating the aggravation of having to call in the plan to a regional FAA service station.

"I love the EMI flight planning service offered by CompuServe," Yoder says. "It's unbelievably accurate and that accuracy is important to pilots. I've flown 800-mile trips and had the fuel consumption be within 10 pounds of the predicted amount and arrived at my destination within two or three minutes of the EMI service's projected flight time."

EMI Flight Planning uses the information the pilot enters about speed, altitude and other critical factors, combines it with up-to-the-minute data on wind speeds and other variables and, for a surcharge of a couple of dollars, presents a flight plan and an alternative plan that can be downloaded, printed and taken along. "If the airport I'm flying into is closed, I have the information in front of me about where I'm likely to be diverted," Yoder says. "I typically access CompuServe the night before to print the flight plans and weather briefings. I scan it, toss it in my briefcase and go over it thoroughly when I get on the plane."

Because the FAA required pilots to prepare and file flight plans long before online services became available, there is an alternative—but it's an alternative Yoder is happy to avoid. The old-fashioned way is to call the toll-free number for the nearest regional FAA flight service station, provide an employee there with the flight information and write down the weather information the technician reads from his computer screen. "You can't possibly write it all down," says Yoder. "Getting a printout is a safety plus for me because I know I have all the information and that it's accurate."

Filing the plans online saves time and money for this busy executive who —because safety and accuracy are essential—doesn't delegate any of his pre-flight arrangements. "Filing the plan over the phone with an FAA per-

son leaves room for error because he's writing down what I'm saying and could record it inaccurately. After I file the plan with CompuServe, I have my printout as verification that it's correct."

Dan Meeks, CompuServe product manager for EMI, adds that online filing also eliminates potential aggravation. "There is a certain percentage of flight plans that aren't filed because of human error," Meeks explains. "The pilot gets ready for takeoff and is told they don't have his flight plan. The pilot often has to face delays while waiting for a new plan to be filed. Our system gives pilots online confirmation that their flight plans have been seen and accepted."

Meeks adds that another new EMI feature called "optimization" will also be welcomed by pilots. Optimization checks the winds at various altitudes. The EMI service reviews this data and will suggest the most fuel-efficient altitude based on wind information. "Pilots can save a lot of money on fuel if they avoid flying the headwinds," Meeks explains. "Because they're not flying into these strong winds, they will also make better time."

Safety in the Skies

Galipault Leads Aviation Safety Institute in Online Activities

by Carole Houze Gerber

John Galipault, president and founder of the Aviation Safety Institute, is a bear when it comes to air safety. "But ASI doesn't just sit back and growl about safety problems," he says. "We actively promote safety by identifying hazards before they can become accidents."

Galipault founded ASI in 1973 after he was a flight instructor at Ohio State University. A non-profit research organization dedicated to the prevention of aviation accidents, ASI has been nationally recognized for its contribution to air safety. The research and investigative efforts of ASI's seven-person staff are supported by contributions from ASI members on three continents. Contributions are tax-deductible.

Many of ASI's services—notably its outstanding Hazard Reporting System and monthly newsletter, *The Aviation Safety Monitor*—are available online. Type GO AVIATION to find ASI and eight other aviation services available through CompuServe.

Galipault, who has investigated scores of accidents, says that all plane crashes occur for the same reason: "Force equals mass times acceleration. If you violate that law, you're going down." Galipault himself has never come close to that ultimate violation. With more than 8,000 flight hours on the books, his only mishap occurred in the 1950s when he fell while getting out of a F-94 during National Guard training and hit his head on the ground.

Other air travelers have not been so fortunate, and many fatal accidents could have been prevented. "You prevent accidents by identifying unsafe acts and unsafe conditions," he maintains. To Galipault, "unsafe acts and conditions" may include the design and construction of the plane itself.

In the May 1979 American Airlines crash at Chicago's O'Hare International Airport that killed 273 passengers, the plane, a McDonnell Douglas DC-10, crashed on takeoff when an engine fell off due to cracks in the pylons holding it to the wing. Galipault, who had previously seen reports of the cracked pylons, said design flaws were responsible for the crash. In an appearance on NBC's "Today" show, he cited 17 design flaws on the DC-10 and told viewers he would never fly on that model. DC-10s temporarily were grounded by the FAA following its own investigation, and some design changes were made later.

Safety hazards targeted by Galipault and his ASI staff run the gamut. They include a study of accident records of medical helicopter services—ASI research shows that they had three times more accidents than other commercial helicopter services (since the rate has gone to nearly zero)—to suggestions for improving the dangerous flight paths into major airports.

Another major coup for ASI was the government's response to a six-year study ASI conducted of near-miss and mid-air collisions between military and civilian aircraft in areas where training operations were being conducted. ASI got the government to identify 180 previously uncharted military training zones. The result was a 74 percent decrease in mid-air collisions in these air spaces.

Small problems are not exempt from scrutiny. ASI successfully convinced the FAA to require a change in the hardware on DC-10 tray tables when it was revealed that, turned the wrong way, the latch could prevent automatic release of the oxygen mask during emergencies.

Most of these hazards are called to ASI's attention through its Hazard Reporting System, which provides an anonymous method for reporting potential safety hazards. Those who take advantage of this anonymity—accessible online as menu Option 1 in the Aviation Forum—include flight attendants, pilots, maintenance crews, controllers and passengers. To date, about 60,000 anonymous reports have been received by ASI.

Reports are investigated and indexed according to date, carrier, situation, weather and other critical factors. "Sometimes we can give feedback on the report in a few hours. More than a thousand hazards have been eliminated as a result of this system," says Galipault proudly. (ASI also collects hazard reports through its toll-free number, 1-800-848-7386. In Ohio, call 614-885-4242.)

Articles about these hazards and other air safety issues can be found in ASI's *Monitor* newsletter, available online from menu Option 2. Recent articles include "Airlines Install Safer Seats, Rule Pending," "New Radar Gives Windshear Warnings," and "Simulator Training Should Improve Air Traffic Control."

"We've found that aviation people are intense readers," says Galipault. "They have to absorb a lot of information, and we're trying to provide that. We have about 13,000 pages in online files covering every conceivable topic from safety tips for pilots and how to survive cold weather crashes to service difficulty reports."

Galipault adds that the National Air Traffic Controllers Association, which is now using CompuServe's EasyPlex facility, will have a private bulletin board and library in the Aviation Forum. "We're happy to have their participation," Galipault says. "About 250 of 700 recent online messages dealt with air-traffic control. It's a hot topic."

He invites anyone interested in air safety to look into The Aviation Safety Institute. "Some of what we offer is technical, of course," Galipault explains. "But the essence of safety is good communication. We encourage wide participation."

Carole Houze Gerber is a contributing editor of Online Today. *Her CompuServe User ID number is 70007,1215.*

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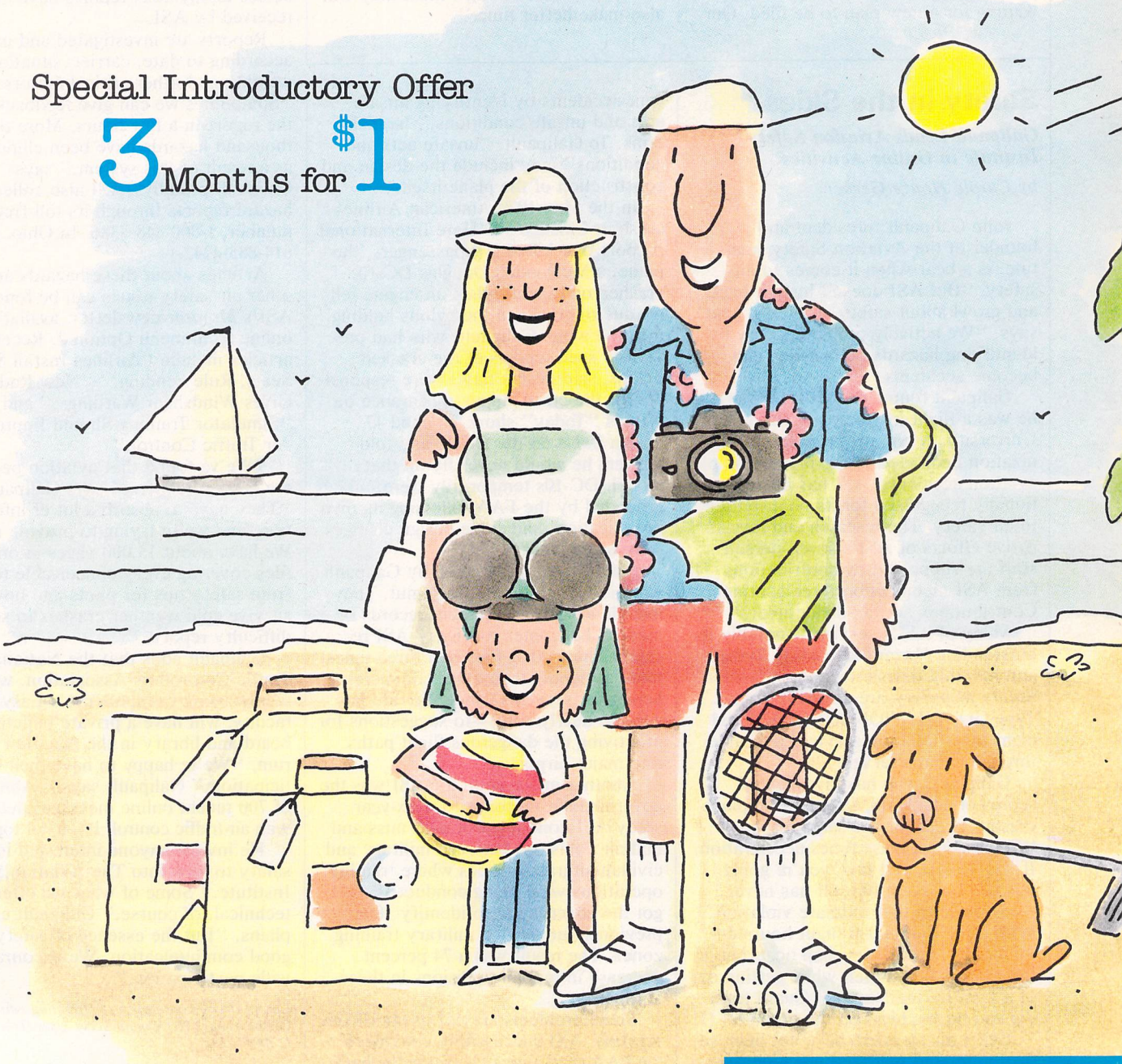

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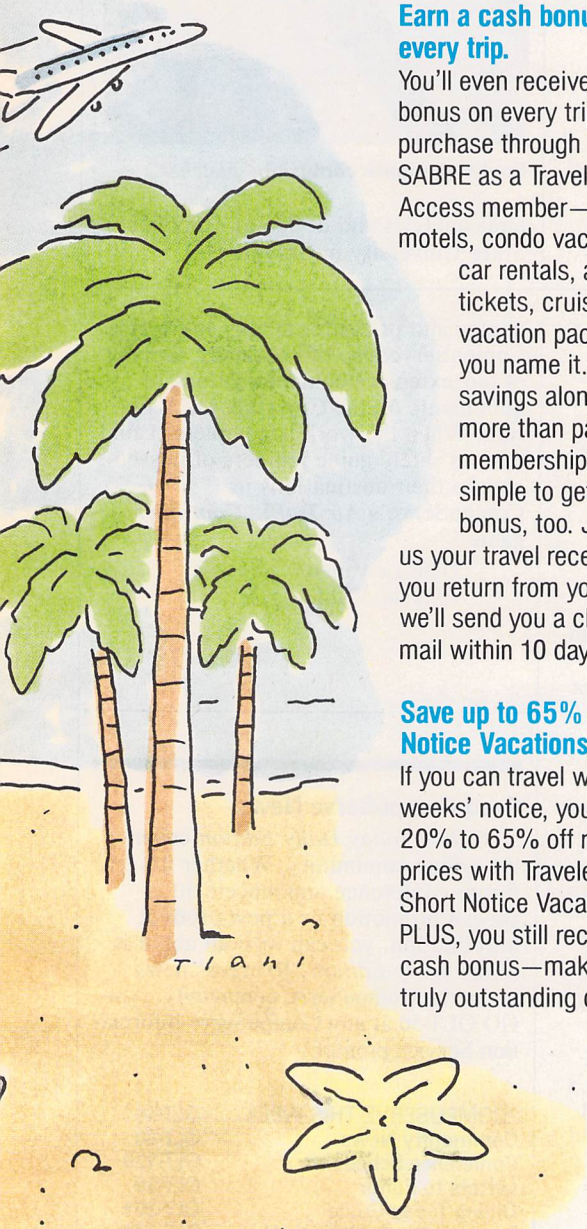

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Q: How can I change my current billing option?

A: To change your billing option, type GO BILLING at any prompt. Here you can change to CheckFree or credit card, and update information on your current billing information. New credit card information will be updated in one or two business days. You must change CheckFree information before the second-to-last Saturday of the current month to ensure that the next month's transfer will be entered with the new information.

Q: How does CheckFree electronic funds transfer work?

A: CheckFree is an easy way to pay your CompuServe bill without having to write a check. Each month your charges are accrued and paid electronically by CheckFree. The billing period ends on the last Saturday of the month, and your charges are paid through your checking account on the 17th of the next month, or the next business day if the 17th falls on a weekend or holiday. Type GO CHECKFREE to view your upcoming transfer amount charge. There is a $5 monthly minimum charge for using the CheckFree option.

Q: How will I know how much my CheckFree transfer will be each month?

A: For your convenience, your monthly statement is offered online by typing GO CHECKFREE. Choose Option 2, "Current CheckFree Transfer Amount," for the amount to be deducted on the 17th of the month.

Rep of the Month

Dennis Fletcher, a Customer Service representative who enjoys *MegaWars III* and the Science Fiction/Fantasy Forum, likes working with CompuServe members to make their online time easy, enjoyable and economical.

Dennis suggests members obtain four books: *The CompuServe Users Guide*, *The CompuServe Almanac*, *How to Get the Most Out of CompuServe* by Charles Bowen and David Peyton and *Master Guide to CompuServe* by Alfred Glossbrenner. "These reference materials greatly enhance use of the service and save their purchase prices within the first few accesses," Dennis says. "These books can eliminate confusion and reduce the time members would spend online searching."

Dennis is studying computer information science with emphasis on systems analysis and design at The Ohio State University in Columbus.

Greg Miller

Books eliminate confusion: *Fletcher*

Gift of Time

Online Today offers members the chance to win 10 hours of standard service connect time (a $60 value) by writing a 200-word essay on how they use CompuServe's Information Service.

The essay should be typed double-spaced and sent to *Online Today*, CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or via an EasyPlex message to 70003,3246. Please include your full name, address and User ID number.

Winning essays are published in *Online Today*.

Online Resources for IBM Users

There are few industries as volatile as personal computing. As an IBM PC support coordinator who is required to research, evaluate and recommend personal computing products for my company's end-users, I find that CompuServe keeps me abreast of new products and techniques.

I direct questions about new products to the members of CompuServe's IBMNET and usually receive at least three answers within hours. The blend of experience represented in these forums adds tremendous value to my subscription.

CompuServe meets other needs as well. I stay up-to-date on financial news "clipped" from the Executive News Service and access historical quotes and prices for stocks and bonds. CompuServe also offers timely support of our extensive communications requirements on the Crosstalk/DCA Forum. When the work is complete, I find time to safely guide jetliners of passengers to their destinations in CompuServe's *Air Traffic Controller* game.

Dale Lewallen
Artesia, Calif.

Read CompuServe News

Online Today Daily Edition covers the online community. Whether it's a forum conference announcement, a special promotion or a new product introduction, you can read all about it in the *Daily Edition*. To access news about the CompuServe community, type GO OLT-50 at any CompuServe Information Service prompt.

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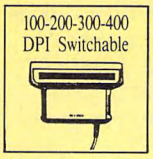

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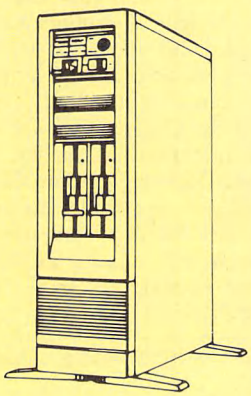

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Options: Choice of power modules dependent on nationality.
Model Tested: Standard H-P Paintjet operated via parallel printer port of Proteus 286GTX computer (PC-AT compatible) running PC-DOS 3.10 at 6 and 12 MHz.
List Price: $1,395

Reviewed by Ernest E. Mau

Have you noticed that many software products now support color printers? Not only has color become important for screen displays, but many people now consider color equally important for hard-copy charts, graphs, drawings and the like.

The computer user who wants color on paper has only three choices. One is a pen plotter, but plotters are slow and often inadequately supported by commercial software that either lacks necessary drivers or has poorly designed drivers. Another is a color dot-matrix printer, but color-banded ribbons are costly, quickly become smeared and don't offer the density one might want. The third choice is a color inkjet printer such as Hewlett-Packard's PaintJet, where inks are sprayed onto the paper's surface.

The PaintJet is a compact, lightweight unit for letter-sized cut paper sheets, Z-fold pin-fed paper or transparency film. Its carriage holds two ink cartridges, one with black ink and the other with yellow, red and blue inks that Hewlett-Packard calls yellow, magenta and cyan. While printing, both cartridges travel the width of the paper with the carriage.

I once reviewed a competing color inkjet printer that held ink in flexible bags and relied on atmospheric pressure to force ink through the jets. Buried in the back of the manual was a statement that the printer was recommended only at altitudes of 1,000 feet or less. I never did get the unit to print well in my office, some 5,000 feet above sea level. Hewlett-Packard's PaintJet uses rigid ink cartridges, does not rely on atmospheric pressure and works well at any altitude. I had no problems getting a PaintJet to spray enough ink to make dense, pleasantly viewable prints.

The printer is simple to set up. It connects to a computer via a standard printer cable. With a parallel interface, only two externally accessible DIP switches need be set to select English or metric paper size and a default symbol set. Serially interfaced printers have five other switches set according to baud rate, parity and required handshaking modes.

The printer's top cover has four touch-sensitive switches and two LED indicators. The switches control power, set the paper's top of form, generate line feeds and generate form feeds. Powering up while holding the form feed switch activates a self test that exercises all jets, ink colors and text characters.

Printouts are amazingly crisp and sharp, especially when using the recommended Hewlett-Packard PaintJet paper. Even delicate graphic lines are clear, and letters as small as 4-point type from graphics programs are completely legible. Trials with other papers were acceptable but not as impressive, and some standard printing papers give off fine paper dust. Eventually, that dust could cause problems, so a good grade of smooth, dustless paper is best.

Software support was disappointing in that some commercial programs did not correctly translate screen colors to printer colors. By using color mixes and varying ink densities, the PaintJet offers a fairly wide palette of colors that includes magenta, cyan, orange, purple, brown and pink. But actual outputs from many programs did not make full use of the available palette, so printouts differed radically from screen displays. Software Publishing's Harvard Graphics, for example, changed the screen's orange to a printed black, yellow to red and purple to green. Other programs changed colors according to the printout quality specified. Evolution Computing's EasyCAD 2 correctly rendered colors for low-quality draft printouts, but totally changed colors for high-quality final printouts.

Color alterations apparently are related to the way the PaintJet handles "color planes." Some combinations of planes have more colors available than others, and much of the existing software doesn't take that into account or fails to warn of possible color differences when changing print qualities.

Although its capabilities were charming, my PaintJet unit was not as reliable as I'd have liked. The carriage tended to jam after two or three pages, and those jams had nothing to do with paper feeding or path blockages. I attributed the problem to shipping damage, because reseating internal connectors cured it temporarily. Other units tried at dealerships did not show the jamming problem at all.

In sum, the PaintJet has impressive speed and capabilities, and it provides far better outputs than any color dot-matrix printer I've used. And it is almost silent. Given programs that can drive this printer properly and a tolerance for occasional color differences between printouts and screen displays, I found the PaintJet quite likable.

Ernest E. Mau, a full-time, free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

Go Online for More Hardware Reviews

The following hardware review is available in *Online Today Daily Edition* by typing GO OLT-220 at any CompuServe Information Service prompt.

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Optional Items: Hard disk recommended.
System Used for Test: 2MB AST Premium/286 computer with 80287 math coprocessor, Genoa SuperEGA HiRes Video Adapter, Sony Multiscan monitor, 80MB hard disk and Logimouse C7 mouse; running MS-DOS 3.2 at 10 MHz.
List Price: $99.95 ($139.95 with BIOS preprocessor).

Reviewed by Hardin Brothers

Customizing a program or simply finding out how a program works is not a simple task on an MS-DOS computer. The DOS Debug utility is awkward at best and is incapable of doing much at all with a program in ".EXE" format. Other trace programs are more useful, but none provide the convenience of working from source code with comments.

Sourcer (version 1.72) is a specialized program for those who wish to customize commercial programs, add features to their ROM BIOS, recreate the source code of a program they wrote themselves, study undocumented code from a compiler or add-on library, or simply learn from other programmers' techniques. You can give Sourcer a few commands and wait from several seconds to more than an hour.

Sourcer can create a file in assembly-language format, so you can make changes and then reassemble the program with Microsoft's Macro Assembler (MASM). Or it can create a listing file with both the bytes from the object code and disassembled instructions side-by-side. In both, Sourcer will supply comments that explain the function of each DOS and interrupt call, the location of each jump, and often, some of the simpler logic of the program.

That, at least, is the idea behind Sourcer and, with some work on the user's part, it almost meets those goals. Sourcer does produce assembly-language source code from both .COM and .EXE programs of small and moderate size. Whether the results are satisfactory and whether Sourcer's output can be reassembled to work like the original program depend on the complexity of the original, the effort you are willing to expend and, to some extent, whether you can avoid some bugs that appear if Sourcer gets confused.

With small or moderate .COM programs, Sourcer rarely gets confused. Even programs that are written to stay memory-resident, which often are much more complex that standard .COM files, are disassembled without problems. However, Sourcer can get confused with .EXE programs, especially those created by a high-level language compiler.

To reduce Sourcer's confusion, you can set a number of options and define which parts of a program are data and which are code. The easiest way to create those definitions is to run Sourcer on the file you are disassembling, examine its code and create a special definition file to resolve the problems that appear. When you run Sourer on your program a second time, it loads the definition file and uses it as a guide for disassembly. For a large or complex program, you may have to repeat the process two or three times before Sourcer generates an assembly-language version that can be reassembled.

Creating a definition file and selecting among Sourcer's many options would be easier if its manual were clearer. In 46 pages of type that is too small and uses sentences that often are too short and occasionally ungrammatical, the Sourcer manual presents information about more than 25 disassembly options and a large number of commands that can be included in a definition file. The best way to learn about some commands is simply to experiment on short files.

Sourcer's optional BIOS preprocessor lets you disassemble your computer's ROM BIOS. It does an excellent job of explaining the purpose of most code blocks in the BIOS.

Just before this review was written, V Communications provided a beta copy of the next Sourcer version (1.80). It seemed to run much faster than the version reviewed here and had fewer problems with complex .EXE files. That version should be in production by the time this review is published.

To use Sourcer's full power, a hard disk is almost mandatory. The assembly and listing files created can be up to 15 times larger than the programs they come from, and a disassembly of my computer's BIOS took more than a half megabyte of disk space.

Despite some rough edges, Sourcer is a powerful tool for understanding how your computer and programs interact. If you write programs in assembly language, or at least understand how to read an assembly-language listing, Sourcer deserves a place in your programming library.

Hardin Brothers is West Coast editor of PC Resource *magazine and a frequent contributor to* Online Today.

Go Online for More Software Reviews

The following software reviews are available in *Online Today Daily Edition* by typing GO OLT-230 at any CompuServe Information Service prompt. Many daily-edition software reviews are supplemented with GIF graphics, which may be viewed in or downloaded from Library 6 of the *Online Today* Readers' Forum (GO OLTFORUM).

MacDraw II Graphics
Manufacturer: *Claris Corp.*
Computers: *Apple Macintosh family.*

Point-to-Point Communications
Manufacturer: *Pinpoint Publishing*
Computers: *Apple IIe, IIc and IIgs.*

J-Writer Academic Word Processor
Manufacturer: *John Riskin and Assoc.*
Computers: *Apple IIe, IIc and IIgs.*

Publisher's PicturePaks For WordPerfect 5.0
Manufacturer: *Marketing Graphics*
Computers: *IBM compatibles.*

MaxOnline Telecommunications
Manufacturer: *Maxon Systems Inc.*
Computers: *IBM compatibles.*

OPTASM Assembler
Manufacturer: *SLR Systems*
Computers: *IBM compatibles.*

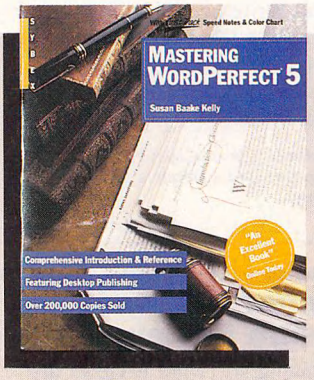
PRD+ Shorthand Program
Manufacturer: *Productivity Software International Inc.*
Computers: *IBM compatibles.*

Memory Lane Information Retrieval System
Manufacturer: *Group L Corp.*
Computers: *IBM and compatibles.*

GelcoVectr Travel Expense System
Manufacturer: *Gelco Payment Systems*
Computers: *IBM compatibles.*

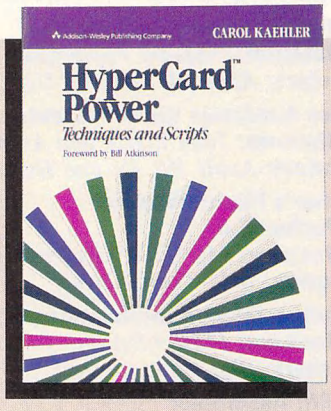
Online Book Reviews

Following are summaries of book reviews available for reading this month in *Online Today Daily Edition*. To read the complete reviews, type GO OLT-240 at any CompuServe Information Service prompt.



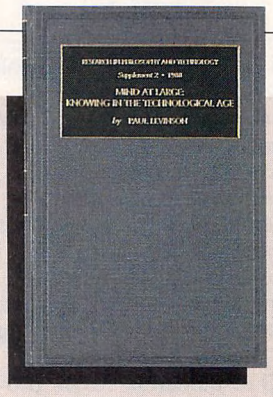
Mastering WordPerfect 5
By Susan Baake Kelly
Sybex, 1988
790 pages, $21.95 (softcover)

This book gives information the official WordPerfect documentation leaves out. Reviewer William J. Lynott says there is little one needs to know about WordPerfect that can't be found between these pages. *GO 4030*



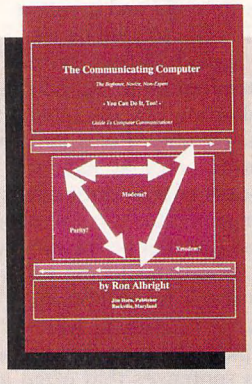
HyperCard Power: Techniques and Scripts
By Carol Kaehler
Addison-Wesley, 1988
435 pages, $17.95 (softcover)

Written by one of the developers of HyperCard, this text is an excellent introduction for beginners and those who want to master the program. Reviewer Cheryl Peterson says the book uses a tutorial approach with encapsulated hints to reveal the program's most useful features. *GO 4040*



Mind at Large: Knowing in the Technological Age
By Paul Levinson
Jai Press, 1988
271 pages, $31.75 (softcover)

Not your typical computer book, *Mind at Large* examines human knowledge as a technological product and the revolutionary impact the computer has had on communication. The book will make you think, says reviewer Susan Katz. *GO 4020*

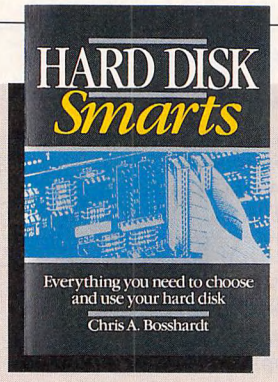


The Communicating Computer
By Ron Albright
Jim Horn Publications, 1988
$10 (softcover)

This book is based on the idea that people don't have to be computer experts to participate in the online revolution. The author's greatest strength, says reviewer Paul Gilster, is an intuitive sense for where novices go astray. It is a succinct and non-intimidating introduction to telecommunications. *GO 4050*

Hard Disk Smarts: Everything You Need to Know to Choose and Use Your Hard Disk
By Chris A. Bosshardt
John Wiley & Sons, 1988
305 pages, $21.95 (softcover)

Designed for those who want to outfit their computers with a hard disk, this book provides basic, but not necessarily obvious, information. Many photographs and a discussion on selecting a hard disk are included. Reviewer Harry Green, an experienced hard-disk installer, says the book is easy to read but contains little unique information. *GO 4060*



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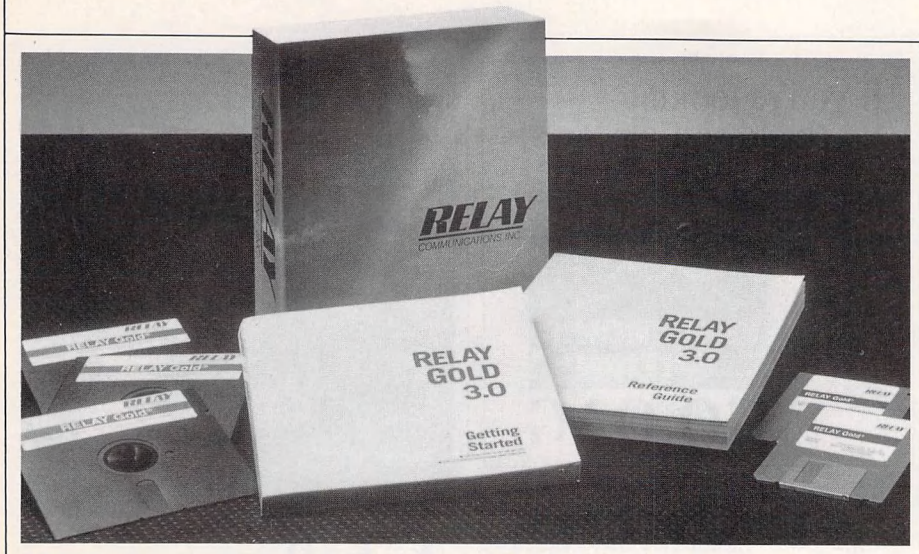

Relay Gold 3.0 Communications/ Linking Software

Version 3.0 of Relay Gold, a powerful PC communications and micro-to-mainframe linking software, has been introduced by Relay Communications. The most significant enhancement to the product is the addition of Adaptive Computer Technologies' CommPressor compression algorithm, which enables Relay Gold to compress files up to 400 percent. Other new features include multiple sessions, expanded memory support, additional terminal emulations and more.

The retail price is $295. Registered users can upgrade from versions 1.0 and 2.0 for $75.

For information, contact Relay Communications Inc., 41 Kenosia Ave., Danbury, CT 06810; 800/84-RELAY (nationwide) or 203/798-3800 (in Connecticut).

Mini Modem

Practical Peripherals has introduced a miniature 1200-baud external modem that uses state-of-the-art surface mount technology and offers the same capabilities as a full-size modem.

Called the PM 1200 SA Mini, the modem is 100 percent Hayes compatible, functions at 300 and 1200 baud, has auto-dial, auto-answer, pulse or tone dialing and a volume controlled speaker. It measures 5 by 4 by 1.1 inches. The retail price is $119.

For information, contact Practical Peripherals, 31245 La Baya Dr., Westlake Village, CA 91362; 818/991-8200.

TrailBlazer Plus PS Modem

Telebit has introduced the TrailBlazer Plus PS modem for the IBM PS/2 Micro Channel computer. Included with the modem is HyperAccess communications software from Hilgraeve, which will allow throughput up to two and a half times the modem's 18,000 baud rate through data-compression capabilities.

The modem supports asynchronous data communications at rated speeds of up to 19,200 baud over dial-up lines. The retail price is $1,295 with HyperAccess and $1,195 without it.

For information, contact Hilgraeve Inc., P.O. Box 941, Monroe, MI 48161; 313/243-0576.

Apple Hard Disk

The Preference Hard Disk AP from Western Digital is a 20MB and 40MB hard disk for the Apple Macintosh Plus, SE, II and Apple IIe and IIgs computers.

Featuring maximum speed and reliability in a small footprint package, the Preference Hard Disk AP drives are designed to complement Apple computer systems. The disk is preformatted and ready for use, requiring only to be connected to the SCSI interface and turned on.

The retail price is $895 for the 20MB version and $1,195 for the 40 MB disk. Cables and utility software are included.

For information, contact Western Digital Corp., 2445 McCabe Way, Irvine, CA 92714; 714/863-0102.

Atari ST Modem

Atari is shipping a fully Hayes-compatible, 1200-baud external modem designed for most computer systems, including Atari ST, IBM PC and Macintosh.

The Atari SX212 1200/300 modem supports most popular Atari ST and MS-DOS communication software. Features include full- or half-duplex operation, pulse or tone dialing, a built-in speaker with volume control and eight front-panel LCD indicators. The retail price is $99.

For information, contact Atari Corp., 1196 Borregas Ave., Sunnyvale, CA 94088; 408/745-2000.

Single Chip Modem

Yamaha has introduced the first single-chip modem to operate at 9600 baud.

The YM7109 offers full telecommunications capabilities as well as Group 3 fax communications from one microcomputer to another microcomputer, from a microcomputer to a fax machine or from a fax machine to a microcomputer. For information, contact Yamaha Corp. of America, Systems Technology Division, 6600 Orangethorpe Ave., Buena Park, CA 90620; 714/522-9223.

Go Online for More Product Announcements

The following new product announcements are available this month in *Online Today Daily Edition* by typing GO OLT-250 at any CompuServe Information Service prompt.

MultiBoot, *allows OS/2 users to install both OS/2 and DOS in their computers, Bolt Systems Inc.*

Battery Watch, *updated battery monitoring software for laptop computers, Traveling Software.*

Studio/8, *Macintosh II color paint program, Electronic Arts.*

@Liberty (pronounced "At Liberty"), *1-2-3 spreadsheet compiler software for the IBM PC, SoftLogic Solutions.*

Minds, *search and retrieval software for the IBM PC and compatibles, Terus Corp.*

AutoMate, *allows user of an IBM PC or compatible computer to schedule work and automate computer tasks, Complementary Solutions Inc.*

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(Reviewed by PC Week on 5/19/87)

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Guidelines to Requesting Information Through OLI

Online Inquiry

Online Inquiry is *Online Today*'s electronic version of the traditional reader inquiry card. To request additional information about products or services described in *Online Today*, simply access CompuServe and type GO OLI at any prompt.

CompuServe Page OLI-1
ONLINE TODAY ADVERTISERS
ONLINE INQUIRY (OLI)
1. OLI Instructions
2. Online Today Display Ads
3. Print Edition Reviews
4. Shopper's Guide Mini-Ads

Display Ads

GO OLI-160. Inquiries to this section will be followed by a brief description of the *Online Today* ad. To request additional printed information, simply enter your name and address at the prompts. OLI will add your User ID number and electronically forward your request to the appropriate advertiser(s). The names, addresses and User ID numbers will also be forwarded via US Mail at the end of each month.

CompuServe Page OLI-160
ONLINE TODAY ADVERTISERS/OLI
1. Jan. 1989 Advertisers
2. Dec. 1988 Advertisers
3. Nov. 1988 Advertisers

Editorial Articles/Reviews

At the end of each electronic version product review, you'll be asked if you wish to request further information through the Online Inquiry system. A "yes" response will let the system prompt you for your name, address and other information so that your request can be forwarded to the appropriate company. If you respond "no," the system will return you to the previous menu.

To request information about products reviewed in the print edition, GO OLI-280 and select the appropriate listing, such as January Hardware Reviews. At the next menu, select the product you're interested in. If you answer "yes" at the question prompt, the OLI system will prompt you for the necessary information.

Requests to these sections will be stored and forwarded by traditional mail once each month.

CompuServe Page OLI-280
REVIEW LISTINGS/PRINT EDITION
1. Jan. Hardware Listings
2. Jan. Software Listings
3. Jan. New Product Listings

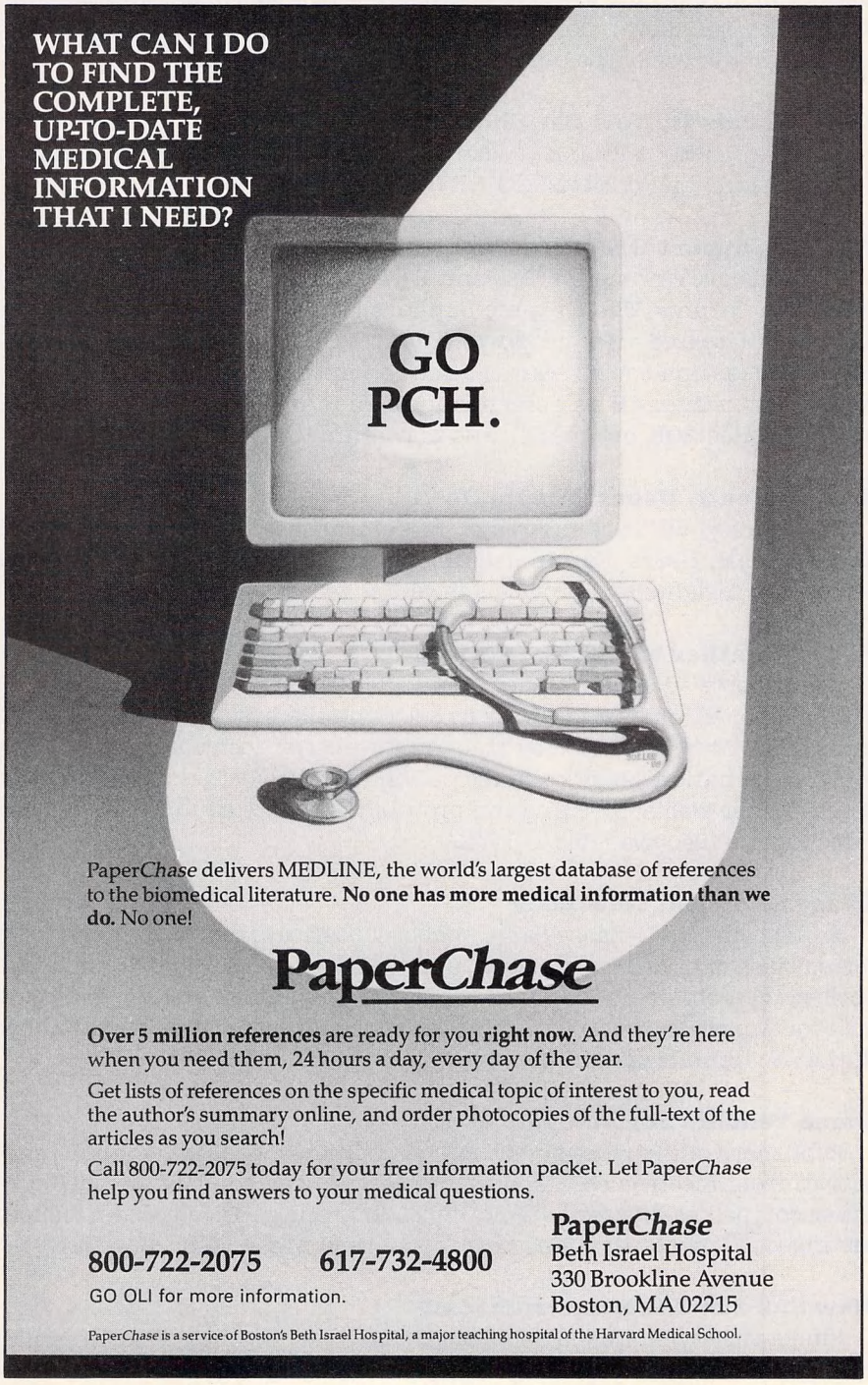
Shopper's Guide

GO OLI-70 to get information about *Online Today*'s mini-ad program.

To request information from Shopper's Guide advertisers, follow the instructions outlined in each ad.

CompuServe Page OLI-70
SHOPPER'S GUIDE
1. About Shopper's Guide
2. Rates and Information

***Note:** Additional requests during the same session will not require you to re-enter your name and address.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UPDATE

Microsoft Product Conferences Scheduled

On Friday, Jan. 27, the Microsoft Applications and Systems Forums (GO MSAPP and GO MSSYS) will sponsor Microsoft's first multiple product online conferences beginning at 4 p.m. PST.

Most major Microsoft products—including OS/2, Presentation Manager, DOS 4.0, Windows (286 and 386 versions), Excel (IBM PC and Mac), Word (IBM PC and Mac), C, MASM and BASIC—will be represented in a conference chaired by Microsoft software personnel. Other products will be covered jointly.

Microsoft will address DDEs, writing macros in Excel and the reasoning behind some programs. Learn how to program faster and with greater accuracy, what PC operating systems are developing into, where computer programs are heading, how graphics-oriented programs will affect the computer science field and how the new user interface makes learning the old commands easy. Visitors may attend any number of conferences. Microsoft software engineers, product managers and program managers will answer questions, take suggestions and offer help.

1989 Models in New Car Showroom

Compare 1989 cars and trucks in the New Car Showroom, which has been updated with prices, specifications and options. GO NEWCAR

Picture Support Graphics Expands

CompuServe's home for GIF and RLE graphic support, the Picture Support Forum, has expanded into three forums. The Graphic Support Forum (GO PICS) provides support for hardware and software used to create and view graphics. The Art Gallery Forum (GO GALLERY) is the home for graphics picture files (and their artists) aimed at medium-to-high-end users who can view files larger than 20K with greater than 16 on-screen colors. The Quick Pictures Forum (GO QPICS) offers support for online graphics files 20K or smaller and containing 16 colors or less.

Zenith/Heath Users' Forum Open

Subscribers who are interested in Zenith Data Systems and/or the Heath Co. computers will find the Zenith/Heath Users' Forum useful. Subscribers have access to thousands of Zenith and Heath users who share insights and provide answers to technical questions for Zenith and Heath systems. GO ZENITH

Public Weather Menu Reorganized

CompuServe's Public Weather Menu offers a wider selection of weather forecasts. Short-term forecasts are available for US cities and towns by selecting the first menu choice and entering a city name. These forecasts can also be requested by state or three-letter identifier. Extended forecasts are available for each state and for the nation. Sports and recreation forecasts list weather conditions in major recreational areas. Severe weather alerts, precipitation probabilities, state summaries, daily climatological reports and marine forecasts are also available. GO WEA

Eaasy Sabre Has New Look

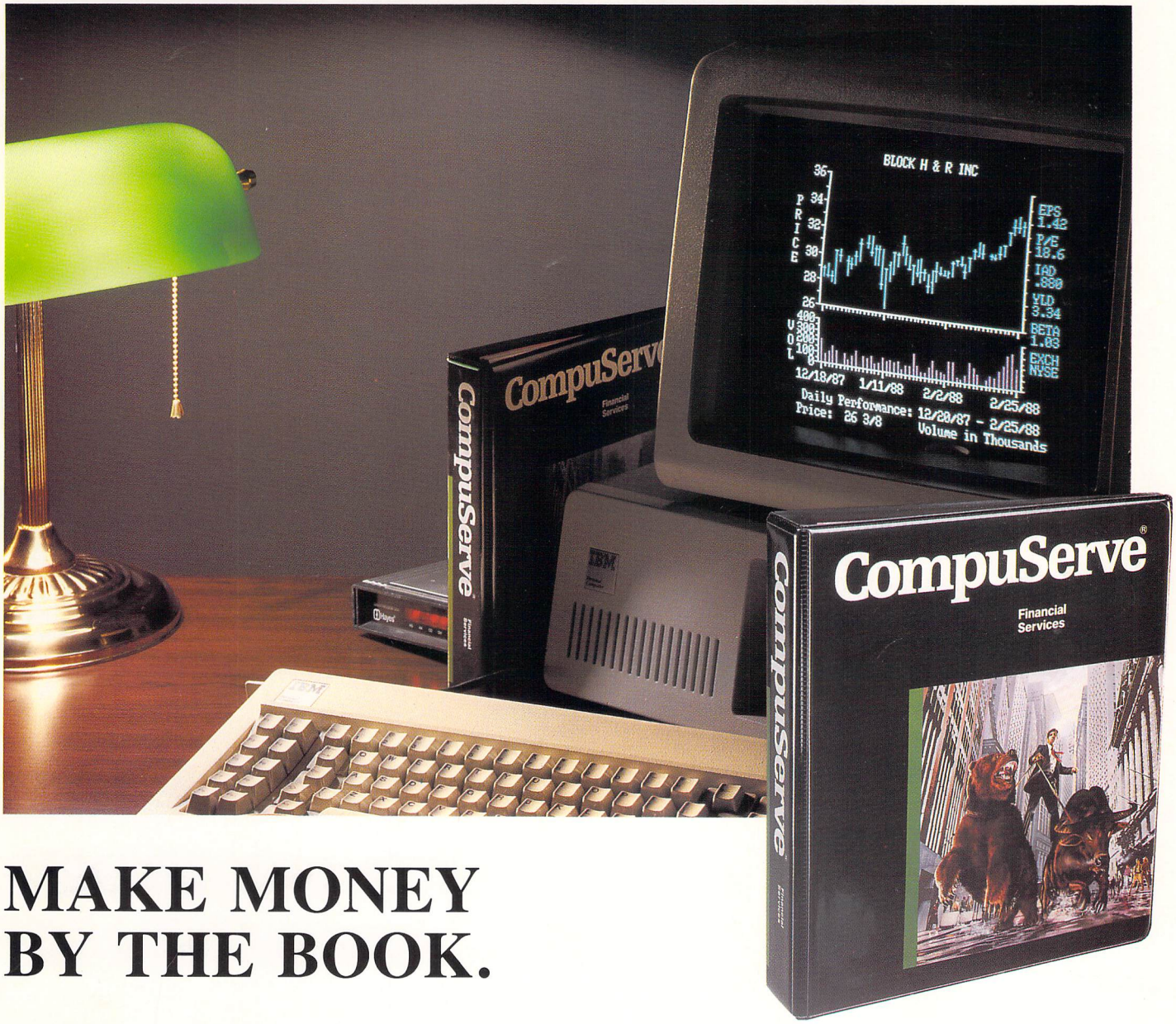
Enhancements to Eaasy Sabre enable subscribers to specify non-stop, direct flights; flights offering a preferred class of service and airline; and flights routed through a preferred connecting city. In addition, subscribers can obtain actual flight departure/arrival information, gate numbers and baggage claim information for American Airlines flights, and scheduled departure/arrival information for other airlines. Up-to-date discount fare information also is available. GO EAASY

Game Vendors Forum Open

Publishers of the most popular microcomputer games are online in the Game Vendors Forum. Representatives from Electronic Arts, Epyx, Spectrum-HoloByte, Activision, Sierra On-Line, Accolade, SubLOGIC and other companies answer technical questions and provide general customer support. Many companies have arranged for demonstration programs of their games. GO GAMVEN

New Store in The Electronic Mall®

Find a variety of unique and fun games for adults, pre-schoolers, children and teens in Games Galore in The Electronic Mall. Games Galore specializes in games that teach, challenge and entertain. GO GG



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Get CompuServe's new Financial Services Users Guide, and be sure you're using all the online tools available to make better-informed investment decisions.

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